

**NETA SNOOK SOUTHERN**



**I TAUGHT  
AMELIA  
TO FLY**



## I TAUGHT AMELIA TO FLY

by

**Neta Snook Southern**

Have you ever wondered what it was like to be among the great men and women of early American aviation—to fly with them in fabric-covered planes and hop around the country in single-engined aircraft on barn-storming tours?

Here's your chance to find out—in one of the most fascinating aviation-adventure books published in years!

Neta Snook Southern was there. She was an active, daring participant in pioneering events in the aviation world, rubbing elbows with men and women whose names have become legendary.

In this book, Mrs. Southern relives those exciting days again and takes us with her. In these pages, we learn what it was like to teach Amelia Earhart to fly, and how it felt to be associated with men like Glenn Curtiss, Donald Douglas, Eddie Stinson, Eddie Rick-enbacker, the daring balloonist Major Thomas Baldwin, and many others.

We learn about that heart-shattering moment when you realize your plane isn't going to clear the trees at the end of the runway; what it was like to zoom upside down over a crowd of cheering spectators; and how a woman felt when she had to fight to prove her worth in a world that belonged very much to men.

*(Continued on back flap)*





To

Farwell Brown  
from  
an old friend

Neta Snook Southern. 6/27/77





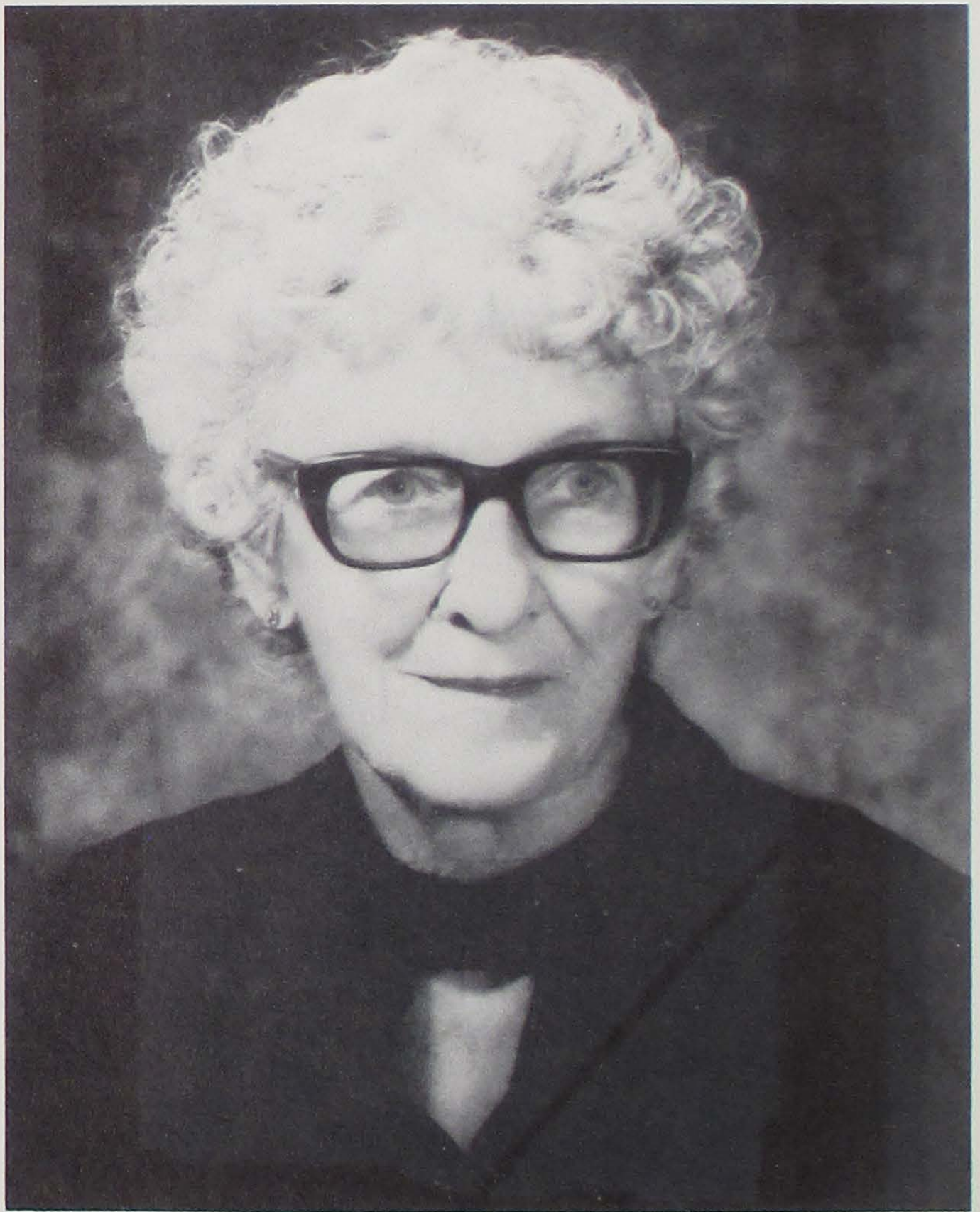


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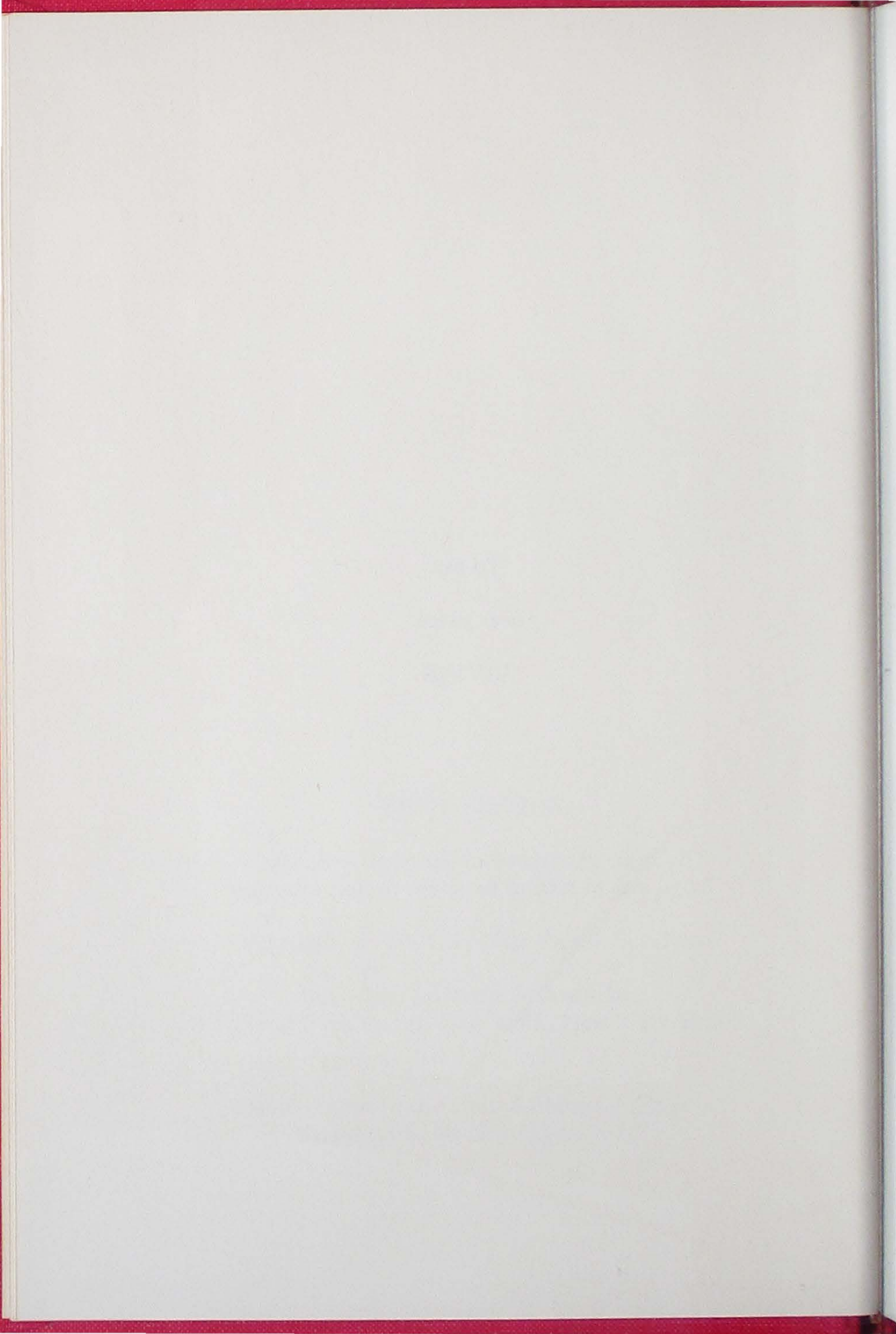
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To my  
dear sister,  
VIVIAN





## ACKNOWLEDGEMENTS

The material in this book is based on my memory, a collection of old photographs, newspaper clippings, my diary and flying log.

For clarification some events have been edited, and, in a few instances, the names of some of the characters have been altered to prevent possible embarrassment.

Kindest thanks go to my sister, Vivian Snook Smedal, who typed the manuscript, and to her husband, Olav, who proposed changes;

To Ann Pellegreno, author of *World Flight—The Earhart Trail* who in 1967 piloted a Lockheed 10 Electra in retracing the route of Amelia Earhart's last flight, for her unstinting encouragement and suggestions;

To Jackie Cathcart and Betty White, who made copies of old photos and created prints from faded and sometimes-indistinct negatives;

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Neta Snook Southern  
Los Gatos, California  
January 1974





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## CHAPTER I

I leaned against the wing of my biplane, removed helmet and goggles, and rubbed a sore spot on the bridge of my nose where the goggles had cut in. It had been a hot December day in 1920. The attendant at Kinner Airport on Long Beach Boulevard in southern California had transferred the extra leather coat, helmet and goggles to the next passenger, and I hoped this would be the last flight today.

"Do *not* touch the controls," the attendant instructed, "and do *not* put your feet on the rudder bar. Just keep your hands in your lap. Do *not* try to look out from behind the windshield or your goggles will be torn off by the propeller slipstream. Do you understand?"

"Yes," the passenger replied. "Will you please tell her not to go too high? I've never been up before, much less with a woman driver."

I put on my helmet over hair still damp with perspiration. As I was fastening it, a tall, slender young lady and an elderly man approached. She was wearing a brown suit, plain but of good cut. Her hair was braided and neatly coiled around her head; there was a light scarf around her neck and she carried gloves. She would have stood out in any crowd, and she reminded me of the well-groomed and cultured young ladies at the Frances Shimer Academy back in Mount Carroll, Illinois, my childhood home.

The gentleman with her was slightly gray at the temples and wore a blue serge business suit. He walked erect with a firm step.

"I'm Amelia Earhart and this is my father. I see you are busy, but could I have a few words with you?"



"Yes, of course. I welcome any chance to rest today."

"I'll come right to the point. I want to learn to fly and I understand you teach students."

I admired her poise and also her consideration by stating her request in such a few words. 'She'll make an excellent student,' I thought. "I teach students in the early mornings only," I told her.

"Is there any reason for that?" she asked.

"Yes. Beginners have to take off into a steady head wind or in relative calm. There is usually a cross wind later in the day."

Amelia scanned every part of the plane while we talked. Mr. Earhart looked but said nothing. "Could I come back tomorrow and discuss flying plans and financing?" she asked.

"I'll be glad to have you. There will be only two regular students tomorrow morning and we'll be done by eight o'clock at the latest."

She smiled at her father. "My parents aren't in accord with my ambitions, but I thought if they found another woman in the business, some of their objections might be overcome."

Mr. Earhart was listening and at the same time giving the plane careful scrutiny. Finally he said, "You seem to be extremely busy, Miss Snook. Are there always so many people around?"

"Saturdays and Sundays are passenger days. Quite a few people just stop to look. This has been a long day."

Amelia lightly stroked the tip of the wing. "Thank you for listening to me. I'll come back tomorrow."

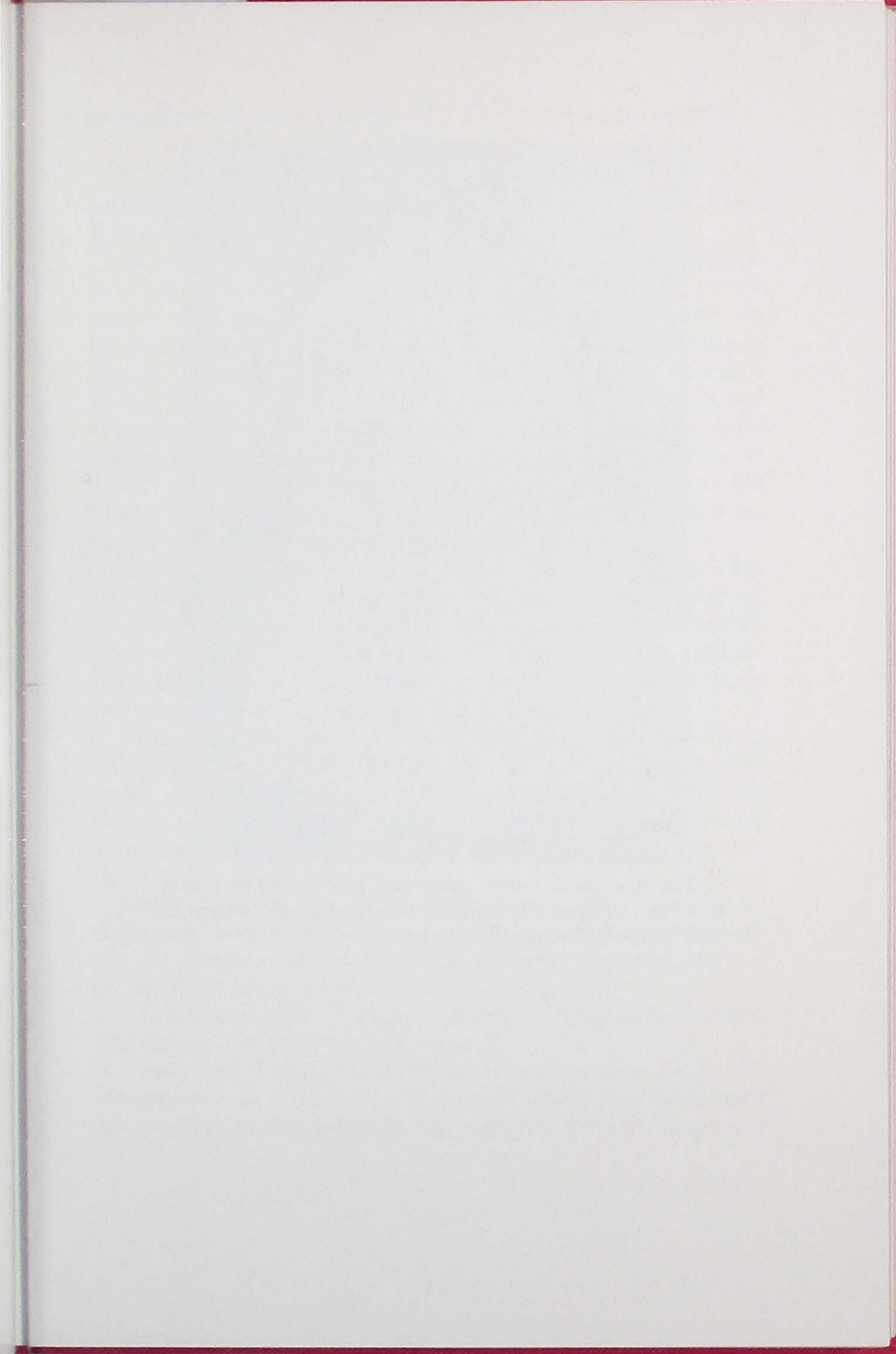
Turning toward her father, she slipped her hand under his arm. He tipped his hat and they walked to the hangar.

The next morning Amelia telephoned and said she would not be able to come until afternoon. "I have to work in my father's office this morning. Will after lunch be convenient for you?"

"That will be fine. There's too much fog for flying anyway."

"Good, then maybe you'll have time to tell me how you







Four-month-old Neta, sober and starry-eyed in a long dress and petticoat trimmed in handmade lace. Dreams of "barnstorming" were yet to be born.



learned and why you wanted to fly. I've been dying to know."

Why *had* I wanted to fly? What *had* been my motivation? This was 1920 and I was operating a flying field in California. I had learned to fly in 1917.

I'd always wanted to fly as far back as I could remember. It must have started when Dr. Glen Mershon, our family doctor at Mount Carroll, sometimes took his children and me on farm calls. He drove one of Ford's first Model "T" touring cars. There were three or four rolling hills out the Arnold's Grove road north of town. He'd race to the top of each and coast down the other side. We called it flying. It was a roller coaster sensation before we knew about roller coasters. It wasn't possible to experience that sensation in a horse drawn buggy. Yes, I think that triggered my first interest in mechanical locomotion, as well as a desire to fly.

As a child of four I vividly recall sitting on my father's lap and "helping" him steer our first car, a single seater powered by steam—a Stanley Steamer. It steered with a handle which protruded from the dashboard and which could be moved from left to right. I was intensely interested in what made cars go, and Papa encouraged me.

Papa was a handsome man with thick black hair and a long red handlebar mustache that curled up on the ends. He wore white shirts and smelled of shaving lotion. Later, when he shaved off his mustache, I cried—I didn't recognize him. He owned and operated a four-chair barber shop downtown only three blocks from our home.

Every moment he could spare was spent either in his carpenter shop or in washing, polishing and tinkering with his car. At frequent intervals he had the working parts laid out on the floor of our carriage house.

"That's the boiler," Papa explained. "This is the burner, and these pipes carry the hot water."

I understood that the water in the boiler had to get so hot that steam was produced, and I could testify to this hotness because the boiler, when in the car, was directly under the





Papa was handsome and smelled of shaving lotion. He loved big, new cars, and through him I learned automobile maintenance and repair.

seat. At times the seat became almost too hot for comfort. The burner had to be on a long time to get enough steam even for a short ride.

When I was about nine, I came home from school one day and Papa said, "I have a surprise for you. Come see."

A beautiful big car completely filled the part of our barn where the surrey and buggy had been kept. It was a large, heavy, maroon-colored, gasoline-powered auto that had two seats as compared to the one-seated Stanley Steamer. The



rear seat was entered by a small, narrow door in the center of the back. There were no front doors. The body was polished hardwood—a Fisher Body.

“What do you think of it?” Papa asked.

“Oh, oh, when can we ride?” I was in and out and underneath it too!

“Sunday, perhaps, but we’ve lots to learn.”

Papa had purchased the car second hand. It had only been driven on the level streets of Chicago and was not geared for



Mama with the bicycle Papa built for her. She was a tall, beautiful woman with brown eyes and long dark hair, and Papa said she was “the belle of Woodland Township.”



the hills of our small Illinois town. Papa called it the "Queen." From the car and the instruction manual, Papa and I learned automobile maintenance and repair. We studied the carburetor, spark plugs, transmission, differential—especially the differential because we replaced a spider gear with great difficulty. The differential gear allows one wheel to turn while the other is stationary. There were no garages or mechanics, but the blacksmith helped us occasionally.

The Sunday drive was quite an event in those days. (We only rode on Sundays—the other days of the week were reserved for work.) People came out of their houses to watch, just as they did when the threshing machine passed through town at harvest time. Every time we met a team of horses we had to stop, and those stops meant extra cranking. There were no self-starters. Sometimes my father would help lead the snorting, frightened animals past the car, and when he did, my mother worried about his safety. She worried about a lot of things.

Mama was a tall, beautiful woman with dark hair long enough to sit on, and big brown eyes. She rode and drove horses all her life. Papa said she was the belle of Woodland Township. She took good care of us—baked cherry pies and crusty bread—but she kept the house too clean. We had to wipe our feet or wear rubbers to be removed at the door. I vowed when I had a home of my own I'd make a blower, open the doors and blow the dust out.

When I was about ten or eleven, my father took me to Chicago to my first automobile show—possibly the first in the United States. He almost didn't take me, but I cried so hard that he gave in. When he found I was much made over because I could talk about differentials, clutches, and gears, he began introducing me as his "boy." The talk was of wheelbases, stroke and bore, displacement and horsepower. I was amazed to see so many different makes, and each manufacturer had one or more cars on display. At the show Papa ordered a bright red Kissel Kar, with black patent leather upholstery and a tonneau body.



The Kissel Kar had acetylene gas lights. A small, removable cylinder of gas was strapped to the running board and a tube ran to each headlight. It was a two-man job to light them. Papa would open the small glass doors of the headlights and stand with a match ready to light. I would stand by the cylinder with my hand on a small key lever.

"Turn it on—gradually—not so fast! Turn it off!" Papa instructed. "That was too fast. It blew out the match. Ready? Now turn it slowly. Good! One is lit." He then went to the other lamp. By that time some gas was flowing there. "Just a little more, easy, that's it. Now I'll adjust them."

"Hooray, we got them lighted that time without an explosion," I exclaimed.

There was no tail light—at least I don't remember one. We scarcely ever used the lights—only perhaps at dusk. Night driving was unheard of where we lived. There were no filling stations, and we bought our gasoline at the lumber yard where a few barrels were stocked. We were careful to strain the gas through a chamois skin, since a drop of water or a speck of dirt would cause carburetor trouble—and a "dead" engine.

Our Sunday afternoon drives usually took us up Clay Street to the Frances Shimer Academy, on to the depot, out to the fairgrounds and back home via Mill Street—about two miles. In the other direction we would go up cemetery hill (if we could get up—I always prayed all the way to the top), then out to grandfather's farm. Mama always called it going "out home," although she had lived in town ever since she and papa had been married. From there we traveled a stretch of rolling hills past Uncle Alex's farm, and back home. That was a long trip—five miles.

Our whole family always went on these drives. Papa and I sat in front, and Mama sat in the back with Vivian, who was a baby then. Mama kept a covered market basket packed with Vivian's clothes and dry milk formula. I can still hear Papa complain, "Why do you have to take everything in the house along? We're not going to stay all night."



"We might have a breakdown and have to wait for a team to tow us. This way I'm prepared."

How I wanted to drive. I sat on the edge of the seat, hoping Papa would say, "Here, you take the wheel and drive—I'm tired." He never did. When I got up courage enough to mention it, he would make excuses.

"Your hands and arms aren't strong enough to release the ratchet and move the hand lever. Your legs aren't long enough to completely release the clutch. You know what will happen if the clutch is only partly released."

I'd shudder and envision all the cogs stripped from a transmission gear. Car parts in those days were usually cast and of poor quality. But I knew I could drive. Hadn't I made many dry runs with the car stationary in our barn? Now we called it a *gar-age*.

Once, when I was thirteen, my father went to Chicago on a two-day business trip. Every time Fred Leigh, a tall, lanky, redheaded, freckle faced neighbor high school boy, passed, I'd stop him.

"Will you crank the car for me?"

"Naw, of course not. Whaddaya think I am?"

"You're just afraid. Guess you're not strong enough anyway."

"Well, I might. What'll your father say?"

"He's not home and nobody will know. Guess you're not strong enough and you might break your arm."

"I *am* strong enough, and I know how to pull up on the crank. Come on, I'll show you."

I jumped in the driver's seat, put the gears in neutral and turned on the switch. The motor caught with the first upward pull on the crank. Carefully I backed out, forgetting Fred entirely. I drove up our one street and down the other, past the two-block business district, around the courthouse square, and back to the opposite corner where we lived. Mama and Mrs. Leigh stood on the corner wringing their hands. They just knew I would kill myself. There was no sign of Fred. I was careful to put the car back in the exact spot from which I'd taken it.



News travels fast in a small town and my father was told of my drive as he stepped off the train. His only reprimand—"Don't do it again." However, from then on he let me drive with him, and shortly thereafter he let me drive alone. Perhaps my father's broken wrist from a crank backfire hastened my solo driving.

The Kissel Kar had an innovation, which was almost a self starter. Sometimes, if a stop had been made for just a short time, you could push a little red button on the coil box on the dashboard and it would start the engine. One had to be careful before stopping to rev up the motor and then quickly cut the switch. This action sucked extra gasoline into the cylinders, and the pressure on the little red button generated a small spark on the plugs. Sometimes the engine started.

I remember in later years the first self starters that were added to Model "T" Fords. A small pulley wheel was connected to the drive shaft on the front of the car in place of the crank. A cable ran from there up through a hole drilled in the dash, to a T-shaped handle. It took a quick, hard pull to start the engine. This method of starting is still used on some outboard motors.

The highlight of our summer was the county fair, where people displayed samples of their best products. The men showed livestock and chickens. The women brought fancy-work, baked goods, and canned fruits and vegetables.

The fair meant only one thing to me—the balloon ascension. It usually took place about five o'clock in the afternoon and was the big climax of each day. From the time the huge, limp gas bag was stretched out on the ground and preparations made for the fire, that was where I stayed. The parachute was laid out next, with a single line from the top to the balloon. At the end of the shroud lines was a trapeze. In the middle of the afternoon the fire was lighted and the local men and boys held the mouth of the gas bag partly over the fire. As the air became hotter, it rose and was trapped in the bag.

While preparations went on for the ascension, I'd run over



to Mr. Isenhardt's tent to get an ice cream cone. Fair time was the only time we could buy ice cream cones, which were made on an iron something like a waffle iron. Batter was poured on and the iron closed for a few minutes. The result was a thin, crisp pancake that, while warm, could be rolled around a wooden cone form, then filled with homemade ice cream.

I stood on first one foot and then the other, impatient for those ahead of me to be served. When my turn came, I'd say, "Please hurry. The balloon is almost ready to go up."

"Now, calm down, little lady. That balloon won't go up for another hour or two," Mr. Isenhardt would drawl in his slow, easygoing way. He never hurried and always visited with everybody.

Back at the balloon, I'd be surprised at its increased size. The bag became larger and larger until its buoyancy made it difficult to hold down.

At last the balloonist would stand holding the trapeze ropes with the seat behind him and yell, "Let 'er go, boys!" Away it would sail. I can never describe my feelings. I almost had to be restrained—my mother kept tight hold of my hand. I wanted to be the one on that trapeze and sail away. In my daydreams, the balloonist would suddenly be stricken by stomach cramps and he'd turn to me and say, "You take her up—I know only you among all this crowd can do it." I don't know why it was always "stomach cramps"—perhaps too many ice cream cones and too much taffy.

The next best thing to flying for me in those days was sailing down one of our hills on my bicycle with my feet up on the handlebars. There were no coaster brakes then, and feet had to be removed from the vicinity of fast-revolving pedals.

Papa made me a child's bicycle when I was six. He had a small building behind the barber shop where he assembled parts into bicycles, which were just coming into vogue. He made a tandem (bicycle built for two) for mama and him. He let me help him string spokes through holes in wooden rims and into a hub. From these he would make a perfectly-





Grandpa Sisler's farm at Mount Carroll, Illinois, where Aunt Verne and Uncle Charley Dresbach lived and where my daydreams of taking flight sometimes grew to unbearable proportions.

balanced wheel. In this shop I learned to operate a lathe and drill press. Both were hand- and foot-operated, not like the electrical ones we have today.

My formal education continued by tutor (my mother and twin aunts were teachers), public school and the Frances Shimer Academy. I was sent to the Academy for music and art lessons. Mama secretly hoped that some of its culture might rub off on her tomboy daughter. Aunt Mabel and Aunt Vernie had little hopes of that coming to pass; they knew me better.

It was at Grandpa's farm, where Aunt Vernie and Uncle Charley lived in a big, white, two-story house with five bedrooms upstairs and a detached summer kitchen, that I was permitted to do almost anything I wanted. Here I rode Aunt Vernie's old horse, "Min", and built things in Grandpa's shop located in an old log house.



The shop was a 'world of wonders' to me.

A work bench extended along one whole side and above it was a small window. At one end of the bench was a homemade vise made from two slabs of hardwood which opened and closed by turning an oak handle attached to a long, threaded metal bolt.

Above the bench were strips of leather fashioned into different sized loops which held many tools—chisels, awls, hammers, knives, pliers, wrenches and hatchets.

Grandpa had made many of these tools, fashioning and tempering them at the forge which stood on the porch of the building alongside a big anvil.

I was never allowed to use the forge, but they did let me pump the bellows which fanned the coals into a heat that was at times so intense it looked almost white.

The planes used for woodworking were also homemade, and Papa even used to fashion saws from a plain piece of steel. He would figure how many teeth were needed to the inch, depending on whether it was to be a rip saw with coarse teeth or a crosscut with fine teeth, and after he had filed in the notches, he would take a piece of iron and a hammer and put a 'set' in every other tooth.

Other things were also made, including harness parts from home-tanned cowhides, and sometimes hinges and buckles.

The workshop was, and in my memory always will be, a favorite of my childhood days.

The smells of clean wood shavings, the seed grain stored in the loft above, leather harness with its coating of neat's-foot oil, and the aroma of curing meat at butchering time will never be forgotten.

One of the things I made in Grandpa's log cabin shop out of odds and ends was a harness for Min, but I didn't have a cart to hitch her to. Seeing no chance of getting one, I decided to build it.

Uncle Charley gave me two iron plow wheels and I made an axle from a four-foot length of split oak. With the wood held securely in the vise, I used a drawknife to cut down each end of the wood so the ends would fit in the hubs of the





My twin aunts, Mabel White, left, and Verne Dresbach and their team of matching black and white ponies. They dressed alike as long as they lived.

wheels. The wheels were kept on by driving a nail, through a washer made of tin, into the axle. Sometimes the nails would work loose and a wheel would come off, but longer, and then longer, nails served as necessary repairs.

Thick, heavy grease, in large quantities, helped eliminate the squeaking and also made the axle last longer.

Two eight-foot one by two's, partly shaped with the help of the drawknife, made adequate shafts, and a three-foot by four-foot platform on top of the cart provided a place for me to ride.

Besides that wonderful shop in the old log house, Grandpa had the largest red barn in Woodland Township, and he and Uncle Charley were 'modern' farmers. They owned one of the first manure spreaders, and their barnyards and hog houses had cement floors.

My twin aunts, Mabel and Verne, who dressed alike as long as they lived, grew up on this farm, and here, as young girls, acquired their team of matching black and white ponies.



When I visited Grandpa's farm, I would lie on my back on the sloping cellar door and follow the flight of red-tailed hawks that circled the farmyard and adjacent fields. I imagined myself up there circling with them, and the longings returned, so painful they are indescribable. Was I ever going to get up there?

Following high school, I enrolled at Iowa State College (now Iowa State University) in Ames, Iowa. It was largely an agricultural college, with departments of veterinary medicine and engineering, and a home economics department that had been added to accommodate the young women who sought admittance. All freshman girls were required to live in the three-story brick and stone Margaret Hall, which was presided over by stern Madam Cunningham.

When my father and I entered Madam Cunningham's office, she rose slowly from behind her desk. She was a heavy woman and wore a black dress and a corset so tight at the waist that she 'bulged' above and below. Eye glasses that pinched on her nose hung on a pin by a chain. These she carefully placed on her nose and looked at us.

"Mr. Snook, I presume? And this must be Miss Snook?" Her voice was deep and she spoke slowly and enunciated carefully.

"Yes, we've made previous arrangements. Neta is to have room 23, second floor corner," my father answered.

"Just a moment while I get my file card. Yes, that's right. I'll ring and have Miss Snook shown to her room."

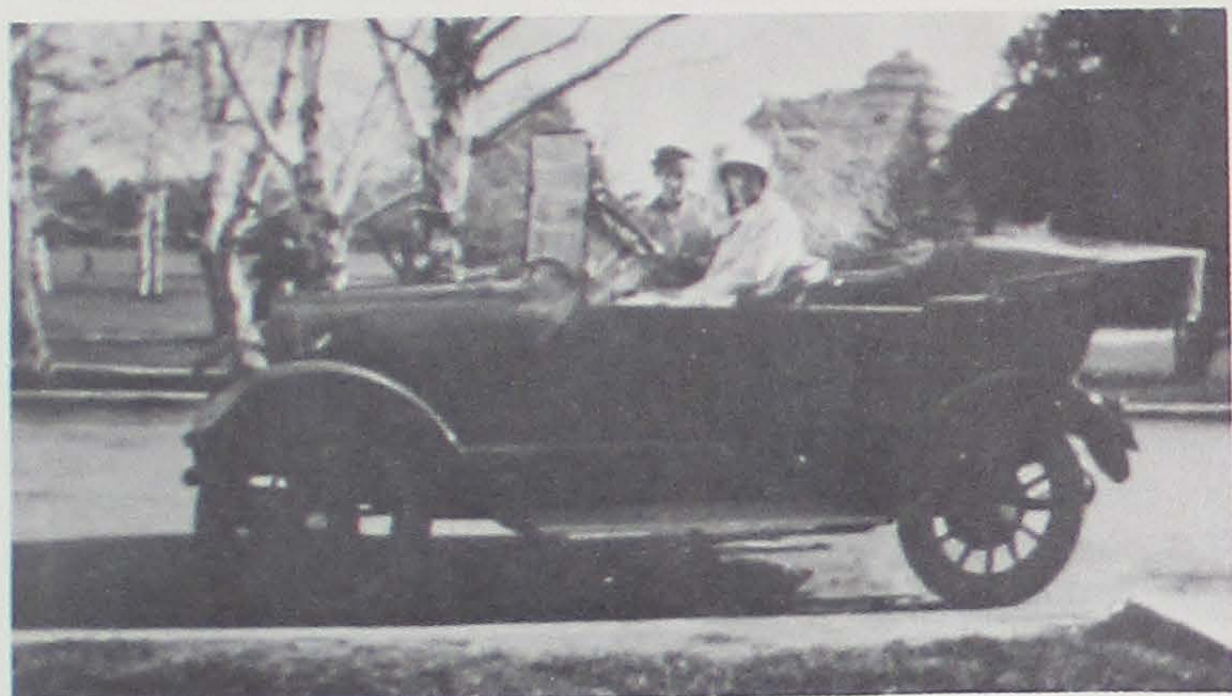
"I've given Neta a check book. She'll take care of all obligations. It's my belief that when a girl is ready for college, she's ready for life's other responsibilities as well. By the way, I've put a new Overland in a garage downtown and Neta has my permission to drive it whenever she wishes."

Madam Cunningham sat down. She didn't answer right way. "That I shall have to take under advisement."

The next day I was summoned to the office.

"Miss Snook, I have made a decision concerning that most unusual request which your father made. I have decided that





Behind the wheel of the Overland touring car which Papa let me use while I was a student at Iowa State College in Ames.

you may drive Saturday and Sunday afternoons, but I must restrict your passengers to ladies only.”

The next afternoon (Saturday) I took my roommate and the two girls in the next room riding. We drove around the campus and then downtown. We passed groups of envious girl watchers. I hadn't promised that we wouldn't do a little flirting. We giggled and waved surreptitiously. When we passed one group at too slow a speed, the engine stalled, much to my embarrassment.

The campus roads were gravel. The Main Street of Ames was the only paved street. That pavement was unusual in that the paving blocks were made of wood. Oak trees had been sawed in foot-long chunks. These were split into blocks about eight inches square and set in the street close together with the cross grain facing up. Sand scattered on top filled the cracks. The whole was periodically given a coat of preservative oil. A streetcar track ran down the middle of Main Street and out to the college campus—about two miles.



I was careful when I made a turn off the pavement on to a side street. If the streets were wet, the car would skid. Grip tires were not in use; and auto tires, while pneumatic, were bald and slick.

We made the most of those weekend joyriding afternoons.

The required college work load was seventeen hours, but more could be carried if the grades did not suffer. I carried twenty-three. After the seventeen hours required for the Home Economics course, additional courses could be selected from the other departments. This enabled me to choose courses that I really wanted—mechanical drawing, combustion engines, and a course in the repair, maintenance and overhaul of farm tractors.

When not in class, I spent much of my time at the college library. There, I read all about balloons and learned of the daring feats of young Tom Baldwin. Later I had my picture taken with him. He was then Major Baldwin, head of the lighter-than-air division of our government. I also read about heavier-than-air craft—planes that used mechanical power.

Now I really wanted to learn to fly.

There was one aviation school in the United States—the Atlantic Coast Aeronautical Station at Newport News, Virginia. I was in my second year of college when I found out about this school. Although my parents were not aware of it, I applied for admission and received the answer—no females allowed—no ‘women’s lib.’

Early the next year I happened to see a notice in a Des Moines newspaper advertising a flying school at Davenport, Iowa—close to home. It read, “Davenport Flying School—competent instructors—superb equipment. We guarantee to teach anybody to learn to fly for only \$400.”

I applied and was immediately accepted.

I did have a little trouble convincing my mother that I just had to have that \$400. My father definitely said, “No.”

How I wanted to learn to fly!



## CHAPTER II

When the college year ended in June, 1917, I went to Davenport. Mr. William T. Cook, the president of the flying school, met me.

He was a slender, nervous man of medium height and about forty years old. His hair was dark and he had small, bright black eyes.

"Oh, hello, Miss Snook. I recognized you immediately by your gorgeous red hair. I just knew any girl who wants to fly is sure to have red hair."

He had no way of knowing what I looked like, but he did know I was an Ames college student and my suitcases held college stickers.

As we walked toward the car, he said, "Please pardon this mode of transportation. This is one of the work cars. Mine is in the shop." Later I was to learn there was only one car.

Mr. Cook's car was a 1911 topless, battered Ford Roadster with a small truck box on the back. We drove down the street and stopped in front of Davenport's best hotel. He escorted me inside and to one side of the lobby where there was a writing desk and some chairs.

"Pardon my office facilities. I'm having the office redone. So you want to fly! I just know you're a natural. You'll take to the air like a bird. My, the publicity we'll get! You know we have the finest instructor. He's from across the pond—from France. Aviation's the coming thing, you know. Another few years and everybody will be flying! You have brought your tuition, I trust." I nodded and he continued in almost the same breath, "Four hundred dollars is such an

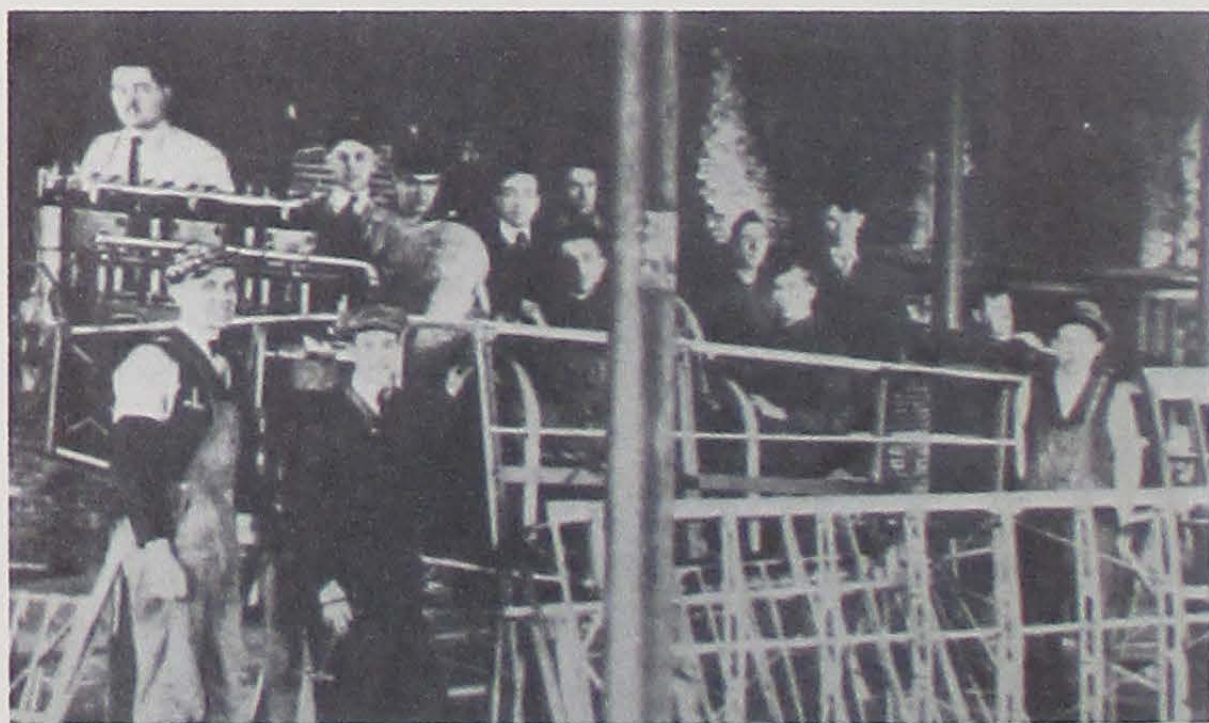


extremely low figure when you think of all the wonderful returns you will receive."

I don't recall the rest of our conversation—or rather, Mr. Cook's. However, I parted with my \$400. He then took me down to the riverfront. There, in an old abandoned warehouse, about a dozen young men were busily engaged in building the "superb equipment."

"Hello, boys. I want you to meet our newest student. Miss Snook, this is Ewing "Cactus" Brierly, he's from Kansas City, Missouri; Mortimer Merrick from Albany, West Australia; Walter "Tex" Frey, San Antonio; C. H. "Spud" Johnson, Ladysmith, Wisconsin; Frank Kohout, Milwaukee, Wisconsin; Paul Morrow, Hollywood California; Win Martin and Earle Lathrop, Detroit, Michigan; Ledger C. "Babe" Reed, Kenosha, Wisconsin; and Ralph Wilson, Rockford, Illinois. There are more—you'll meet them later. Show her around, boys, and then when you quit, bring her up to Reginetters."

The boys were very polite and explained what they were doing. Tex seemed to be the acting boss—he was a hired employee. Tall, lean and lank, he looked at least ten years



The home of the Davenport Aviation School was an old, abandoned warehouse.



older than the other boys, and talked with a southern accent.

I took a keen interest in everything. I always built things and had the use of my father's best tools. So! Why not an aeroplane?

"I'll be glad to help at any jobs where I'm needed, and please don't change any of your habits on account of me. Just count me as one of you," I told them.

"That we will!" Babe exclaimed enthusiastically. Only seventeen years old, but big for his age, he was a tall, handsome boy with black hair and big brown eyes. However, he was brash, boastful, and, I found out later, shirked work; but the boys liked him and 'put up' with his childish pranks. One of the boys described him as a friendly Saint Bernard puppy.

"We'll call you Curly," Babe said. "And you'll be our kid sister. Now let's get out of here; it's time for eats."

We went out through an opening in the wall where there had once been a door.

"Don't you lock up the place?" I inquired.

"Lock up? What's there to steal?" said Mort.

"What would anybody do with a partially finished aeroplane anyway?" added Spud.

Mort was the young man from Australia. He was tall with slightly thinning brown hair, was educated, and played the flute, I found out that evening. He spoke beautiful English with an Australian accent. He was older than most of the boys, and had a more mature outlook on life.

"Spud" Johnson was a Wisconsin boy, from a small town where his father sold real estate. He was pleasant, quiet, with a light complexion, broad round face and blue eyes. He was of medium height and a little on the chunky side.

We 'piled' into two cars—one was Mr. Cook's Ford and the other was a cutdown speedster that Paul and his friend, Greeves, had driven out from California. I rode in the speedster.

A short drive and we were at Mrs. Reginetter's boarding house. Mr. Cook had evidently told her I was coming for she welcomed me with open arms.



Mrs. Reginetter was a large, solidly built German woman with gray hair and faded blue eyes. She wore Mother Hubbard dresses that reached to her ankles, and long aprons tied around her waist. She was a friendly, motherly person whom one took to on sight.

"Now der boys vill haff to behave themselves with a nice young lady around. They're all fine boys—just a little rowdy. Heidi! I smell the potatoes burning. Waldo! Did you take all your things out of dat room?"

Heidi was widow Reginetter's older daughter. She was probably twenty-five years old, and plain in her old-style clothes made from patterns her mother must have used in her youth. She had a sweet nature and obediently followed her mother's commands. The other daughter, Irma, was in high school, wore the same kind of clothes, was also pleasant, but got out of work whenever possible. Young Waldo, about ten or eleven, wore knee pants and long black stockings. He was obedient and played the lackey for his mother and the boys as well. It was, "Here's a dime, Waldo—go down to the corner and get me a paper," or "Waldo, did you fill that woodbox?"

My "room" was an oversized closet at the head of the stairs. It was "double cot size." The cot took up half the entire room. There were several hooks on the wall on which to hang clothes. The floor-to-ceiling double window opened onto the narrow roof over the front porch. I could lie on my cot at night and hear the few boys still there, talking. Their topic was always aviation and its possibilities. They had sleeping rooms in buildings nearby, but were reluctant to leave Mrs. Reginetter's hospitable little parlor and front porch.

My second day at the flying school was exciting and educational and I found my forte. Spud was splicing wires. As he worked, he explained, "You see these cables? They're about  $\frac{3}{16}$  of an inch in diameter and they're made up of a lot of tiny wires twisted together. A cable made up of many small wires is stronger than one large wire of equal diameter. See! I put one end of it through this fitting and then splice back each wire individually. Sailors splice rope; we splice



cables. The other end of the cable I'll attach to this turnbuckle."

"What's a turnbuckle?" I inquired. "Why are they needed?"

"See, this is the barrel of the turnbuckle. It's only about the size of a pencil and half as long, but it's strong. It's threaded inside at both ends. These two parts that look like threaded nails with loops on the end are the parts that screw into each end of the barrel. When a turnbuckle is spliced between two parts of a cable, it's possible to tighten or loosen the cable by turning the turnbuckle barrel. See, the barrel has a small hole drilled through the center so you can put a removable nail through the hole and use it for a handlehold lever to screw up or loosen it. You have to have turnbuckles on all the cables to take up or relieve the tension."

"Say, did you know there are a hundred or more cables needed in each aeroplane?" Brierly informed me. "That's a lot of splices and lots of soldering to do, and the cables are of all lengths, from one foot to over twenty feet, depending on where they are used."

"Soldering, did you say? What do you solder?" I asked.

The word 'solder' brought back to me memories of a childhood frustration.

At one time I had two tiny turtles, retrieved from our neighboring Wakarusa Creek. I made an aquarium of wood about a foot square and nine inches deep. For this I cut an interliner of tin, but the corner joints had to be soldered.

Many tools were at my disposal—my father's and grandfather's—but neither would permit me to use the blowtorch necessary to heat the soldering irons. I took my father's irons and my interliner down to the blacksmith shop. The farrier was my father's friend, and I thought he was mine too, but he would not let me heat the soldering irons at his forge.

The sheet metal shop was my last chance. There I asked Mr. Norm, "Will you let me heat my soldering irons on your blowtorch?"



"Well . . . I don't see how I can do that—you might burn yourself. But I'll tell you what I'll do. My irons are already hot and this little stub of solder is not enough for a big job, so I'll do it for you."

I wanted to do it myself, but realized if I wanted to finish my aquarium I'd better let Mr. Norm do the soldering. However, I did resolve that some day I *would* solder.

Brierly was still talking and I hadn't heard a word of what he said. Finally he realized that my mind was elsewhere because he paused and just looked at me. I looked up and really noticed him for the first time. He was tall, dark haired, and, by his choice of words, I knew he had a college education. He had a debonair manner—nice but a bit condescending in his explanations to me.

"Oh, I'm sorry. I must have been daydreaming—that's a habit of mine. Please go on. You were telling me about the splices."

"When the splices are complete," he continued, "we take them over on that bench, start up the blowtorch, and with the heated soldering iron, completely cover the entire splice with hot solder."

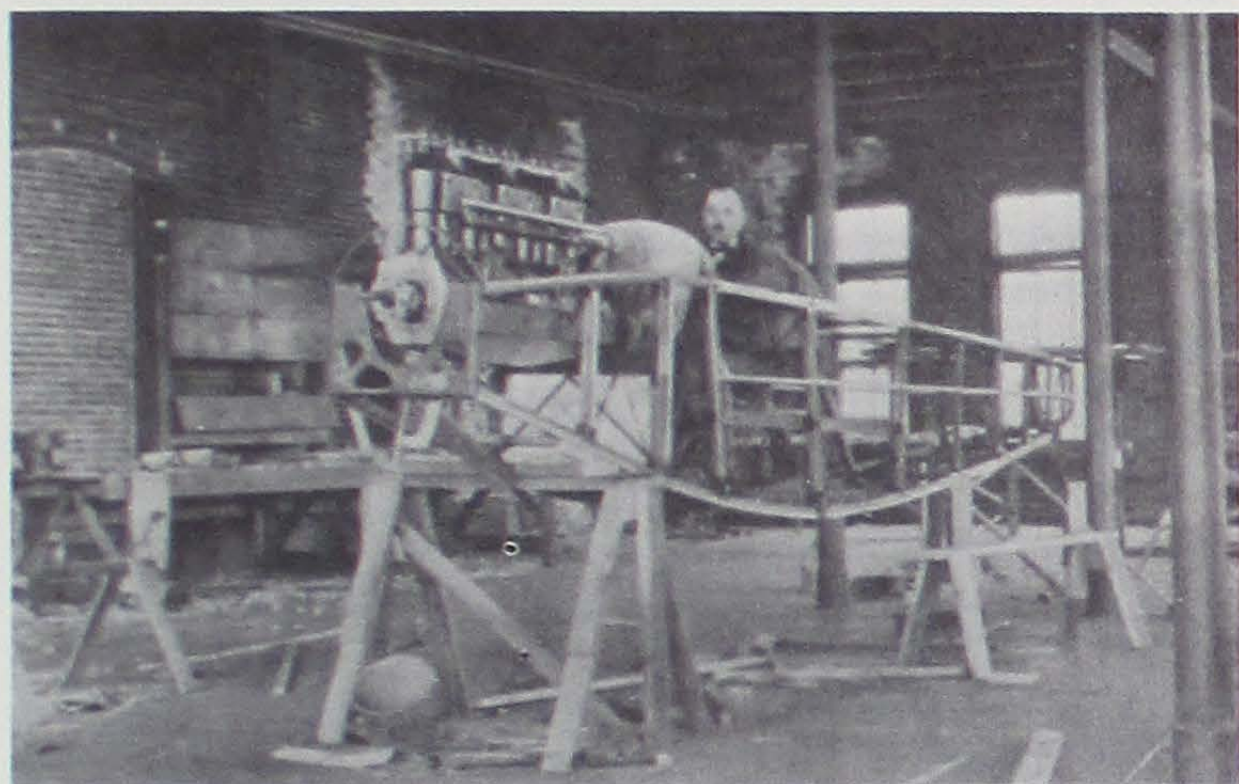
"Yes, and you got to be sure the iron is hot enough that the solder sweats clean down to the core. If a splice gave way, the plane might crash," Spud hastened to add.

"Do you suppose I could solder wires?" I asked. "I'll be very careful."

"Don't know why not," answered Spud. "We'll check with Mr. Cook."

I soldered almost all the cable splices used in that plane. The wing frames contained crisscross cables. The fuselage had crisscross cables at about every eighteen-inch interval, on both sides, underneath, between the sides and on top except where the seats were. Cables from the engine mounts to the wing tips kept the wings from folding back when under stress. There were cables from the cockpit controls to the ailerons, elevators and rudder. Wooden struts held the wings apart and crisscross cables held them together.





Louis Boudor, "Mr. Louie," who was to be our flight instructor at the Davenport Aviation School, sits in the partially assembled fuselage of the aeroplane we built in the old warehouse. Already in place is the Maxie engine, a converted marine model, which, unfortunately, lacked enough thrust to get the plane airborne. It was replaced by a Curtiss OX-5.

The wings we made had two wooden spars lengthwise about three feet apart and parallel. There was a leading edge and a trailing edge. On these spars we put hollow ribs about a foot apart and fastened them securely with glue and screws. The ribs were constructed around a jig on a work bench. They were built with a camber; that is, they were convex on top and concave underneath. Camber is the aerodynamic term that has to do with the lift of the wing while the air passes over and under it. I remember a terrible quarrel between Mr. Louie and Mr. Cook over the wing camber.

Mr. Louie (Louis Boudor) was to be our flying instructor. He had an olive complexion and black hair and eyes. His hair was thin, his face wide, and his cheek bones high. Of medium



height, he was a little stocky, about forty years old. He was friendly, but adamant during an argument. Now Mr. Louie had the floor.

"*Non, non* too flat! Camber—*more* camber," he shouted.

"That'll mean new jigs and all those ribs already made will be wasted," roared Mr. Cook.

"Camber *petit - non elever - non elever!*" (Mr. Louie always lapsed into French when he was excited.)

"What's he talking about?" asked Mort, our Australian student.

"Camber means curve," Paul explained patiently. (Paul was our student of languages). "Don't you remember when we set up the jigs on which to make the ribs, how we shaped them?"

"Oh, yeah," drolled Tex. "They wuz round—convex I think you said, on top, and opposite round underneath. Is that concave?"

"*Oui, oui*" said a more rational Mr. Louie. "Perfect, perfect."

"Yesterday we discussed air currents and how they pass over and under the wing curve," added Brierly.

"You said the air over the top surface went faster than over the under surface and that difference in speed caused difference in pressure," chimed in Milwalk. "Is that what causes lift?"

"*Oui, oui; incident angle accroissement!*"

"He says when the angle of incidence is increased, the axis tilts up and the lift is increased," explained Paul. "You know, the wings are attached to the fuselage so there is a positive angle of incidence of several degrees when flying level. Some call it the angle of attack."

Mr. Louie again remembered why he was angry and began stomping around, shouting, "More camber! Dot air she slide too fast—non lift—non lift!"

"We just can't waste all that time and money spent so far on all those ribs already made," retorted Mr. Cook. "Who's boss around here anyway?"



"Preferable waste time *dan personnes*. More camber—or—non *aviateur*." (Preferably waste time than lives. Change the camber or I'll not fly.) With that, Mr. Louie slammed out of the little office room almost jerking the door from its hinges.

After the frames of the wings, fuselage, ailerons, elevators, stabilizer and rudder were built and cable-braced, we covered all with a tight-weave linen cloth. The boys were glad to delegate the sewing job to me. Mama would have been surprised to see her daughter sitting voluntarily at a sewing machine. The wing covers were made by sewing together lengths of cloth twice the width of the wing, with double-stitched felled seams. Then I sewed the whole piece down the side and across one end. This large "pillow case" was slipped over the wing frame and securely sewed at each rib. We used a strong cotton cord and a foot-long steel needle and made about eight stitches along each rib. Soon all parts were ready to be "doped."

"Who'll help dope?" asked Mr. Cook. We all volunteered.

The dope was a fabric sealer and dressing which smelled a lot like present-day model airplane glue. It came in 50-gallon drums. Each part received seven coats of dope followed by a coat or two of spar varnish. The dope shrank and waterproofed the linen covering. We applied this coating with a four-inch brush in an enclosed room. We doped two-inch-wide strips of pinked linen down each rib to cover the rib stitches.

I had been concerned for quite a while about the many errors in our blueprints. It hadn't taken me long to realize that they were very inadequate. What we would build one day would have to be changed or modified the next to make something else fit.

"These blueprints—who drew them up?" I questioned Tex. "Somebody has made a lot of mistakes."

"Wall," said Tex, "them's Cook's work. You see Cook made a trip back east to the Curtiss factory in Hammondsport, New York. That's where I wuz workin'. He offered me pretty good wages—thought I knew more 'n I do. I'd only worked there a couple o' months. Glenn Curtiss is buildin'



trainin' planes, Curtiss JN4's, nicknamed Jennys, for the U.S. government. They're startin' an air force."

"Yes, I've read about Glenn Curtiss. He was associated with Wilbur and Orville Wright when they made their first successful flight, December 17, 1903, wasn't he? That flight lasted only 59 seconds and covered 852 feet," I explained.

"My, you know a lot. Where'd you hear all that?"

"Oh, I read it in the encyclopedia in the college library."

"I know something about that Wright pusher," said Tex. "Feller I worked with, 'Stoney' we called him, was there. He said the plane was a biplane (two wings, one above the other). It had an engine at the back in the center, just below the top wing. The propeller faced the back. Get it? Pusher—pushed the plane through the air. And the pilot, Wilbur, that is, he set out on some sticks attached to the lower wing. The distance out depended on his weight. You see he had to balance the motor weight."

"Then he must have had to teach himself to fly. I can see two people would over balance the engine. Yes, I remember the picture showed only one seat."

"Yeah, this feller Stoney used to tell me about them 'hedge hoppers'. Said fellers would bring the craziest contraptions out on them salt flats and try to fly. Some would get off the ground a few feet and then land—usually crash. He said he called 'em 'hedge hoppers' 'cause they never got higher 'n a hedge."

"Tell me more about the Curtiss factory. I only know about a school he started in Virginia called the Atlantic Coast Aeronautical Station."

"Wall, Curtiss, he come up with the aileron idea. Some says the Wrights thought of it first. But Curtiss come up with the fuselage idea for sure, and that aluminum 8-cylinder Curtiss OX-5 engine can't be beat."

"Those small hinged portions on the outer rear edge of the wings that we call ailerons are the main controls, according to Mr. Louie," said Brierly, who had joined us. "He says we'll use them in banking and making turns."





Oscar A. "Sol" Solbrig, who had a blacksmith and carpenter shop at Bettendorf, Iowa, is flanked on the left by Ewing "Cactus" Brierly and L. C. "Babe" Reed, and on the right by Morris Ochs and Lloyd Royer. Mr. Solbrig was invaluable to us in our early days at the Davenport Aviation School, as he could cast and forge acceptable plane fittings from our crude drawings.

"What do our blueprints have to do with Glenn Curtiss and why are they so inadequate?" I asked again.

"Wall, you see, Cook tried to git plans," Tex explained. "Curtiss wouldn't give 'em to him. So Cook just looked and looked an' made notes when he thought nobody was lookin'. Then he asked me about how much did this measure and how long was that? I remembered some of it 'cause I helped build 'em. That's why he hired me away from Curtiss—mighty tidy sum more. He thought I'd remember more 'n I do. When we got back here, he begun drawin' and I begun rememberin'."

"I see a lot of things now. Oh, here's Babe. Hello, Babe, want to join us?"



"Hey, Curly," he greeted me. "No! Want to go with me? I gotta go over to Bettendorf to that machine shop and pick up those fittings old Solbrig has forged."

"O.K. Babe, I'll go with you. What car are we driving?"

Oscar A. Solbrig was an elderly man, at least he seemed elderly to me. I remember his black, bushy mustache. He had a combination blacksmith and carpenter shop where he forged iron parts of all kinds. The adjoining room was a clutter of partially-finished or -repaired wood products such as chairs, stools and tables. He also had some unfinished aeroplane wings and longerons blocked out for a fuselage. Often he visited our factory and consulted with Mr. Cook. He was hard to understand, and talked little; but he was invaluable to us in that he could make an acceptable fitting from a very crude drawing.

We didn't work all the time. Some of us were out on buying errands several times a day. Sometimes we'd just quit, pile in the two cars and go for a joy ride. Somebody might yell, "Hot dog—a letter from home—an extra couple of bucks! Let's go over to Black Hawk and spend it." Black Hawk is a state park in Rock Island, Illinois, across the Mississippi River from Davenport. There were stands, rides, games and eats. At the park we were distinguishable from the crowds by our flying togs—khaki pants, puttees and our caps on backward. The carnival tenders favored us because we drew crowds. "Those awful would-be daredevils," some called us. Two dollars went a long way then, and nearly everybody had a few extra dimes. Win Martin had been a motorcycle rider in a motordrome and he personally knew some of the concession operators.

Time passed swiftly as we worked in our shop, and by July we had our plane ready to be moved to the field. Mr. Cook had made arrangements for the use of a field on Suburban Island, which was located in the Mississippi not far from the Davenport side. The river was about a mile wide at this point. On the island were a bandstand and a dance pavilion, but the greater part was farm land. We had arranged to use a newly-cut hay field for our flights. Our plane parts were



loaded on a flatcar and it was towed across the trestle to the island by an electric car which made several trips daily.

First we installed a Maxie motor and then a Hall-Scott. Both were marine engines and neither could develop enough thrust to get the plane airborne. We measured the thrust by tying the tail skid securely to a tree with a scale-like instrument in between. Then we opened the motor wide. The 1500 pounds of needed thrust did not result.

Mr. Cook now made another trip east to the Curtiss factory. This time he returned with a used Curtiss OX-5 engine and a mechanic to install it. At last we had an engine that produced the required amount of thrust that the experts agreed was needed to get our plane into the air. Mr. Louie repeatedly ground tested the engine and asked for finer carburetor adjustments.

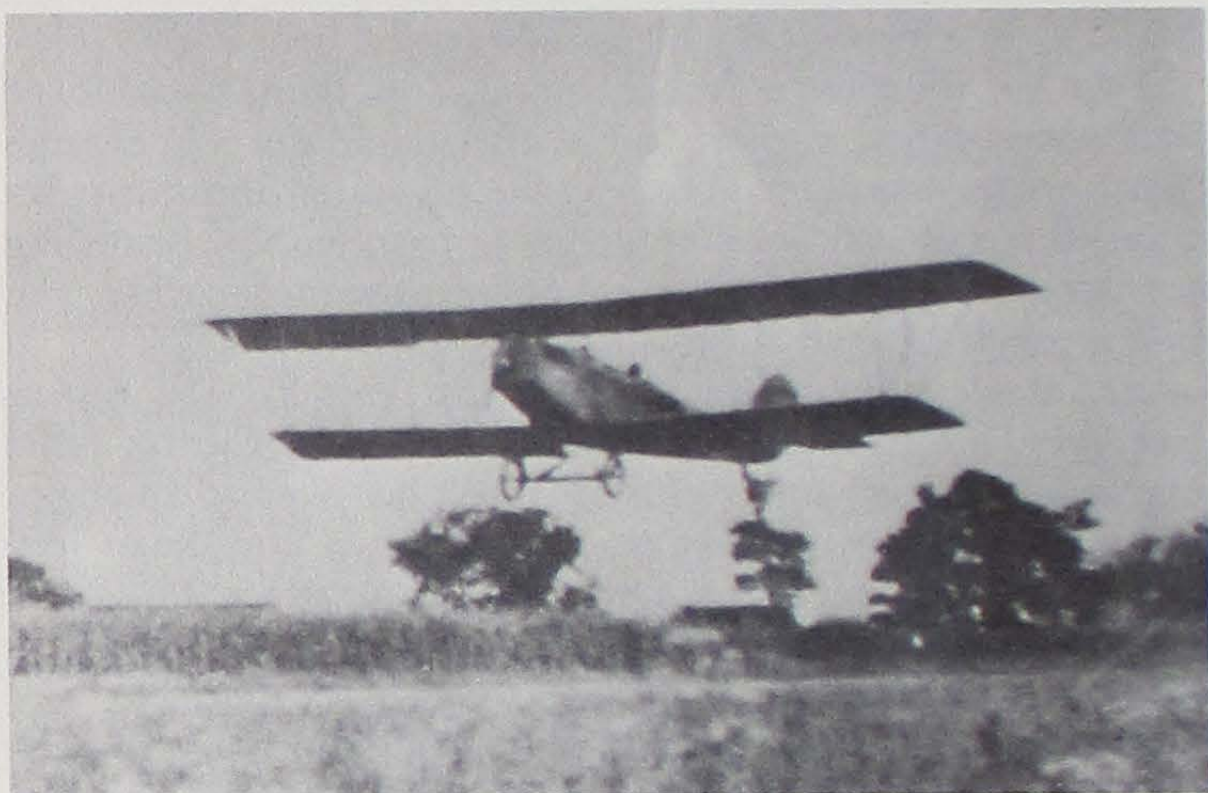
"Why is he stalling?" complained impatient Babe. "Let 'er go, Louie—let's see if she flies."

We were all anxious and still a little afraid. None of us, with the exception of Lloyd, had ever seen a plane in the air. Lloyd had witnessed a crash the year before of his friend Ralph McMillan in a homemade Curtiss pusher. In September of 1916 McMillan had made two successful exhibition flights at St. Francis, Kansas. On the third takeoff the plane stalled and landed on the nose wheel with the radiator and motor on top of him, killing him instantly. Lloyd was explaining the dangers of a stall on takeoff when Babe shouted, "There he goes—Louie is taxiing to the far end of the field!"

We all waited breathlessly—would this be it? One short, quick rev and he opened the motor wide. (It was almost as if he had to get off quickly before he changed his mind.) He raced down the field toward us. We saw the tail lift, and before he had reached the field's half-way mark, he was off the ground.

Some students and spectators shouted and threw their caps in the air. We who realized the gravity of that first turn, watched with mounting anxiety. Would he make it? "Dear God, don't let the engine fail now," whispered Win under his breath. We knew if that should happen, he had no place to





Our Davenport plane, with Mr. Louie at the controls, on its maiden flight from Suburban Island in the Mississippi River at Davenport, Iowa.

land except in the Mississippi River. How relieved we were when he successfully negotiated that first turn and circled back over the field.

Had we actually built an aeroplane that really flew?

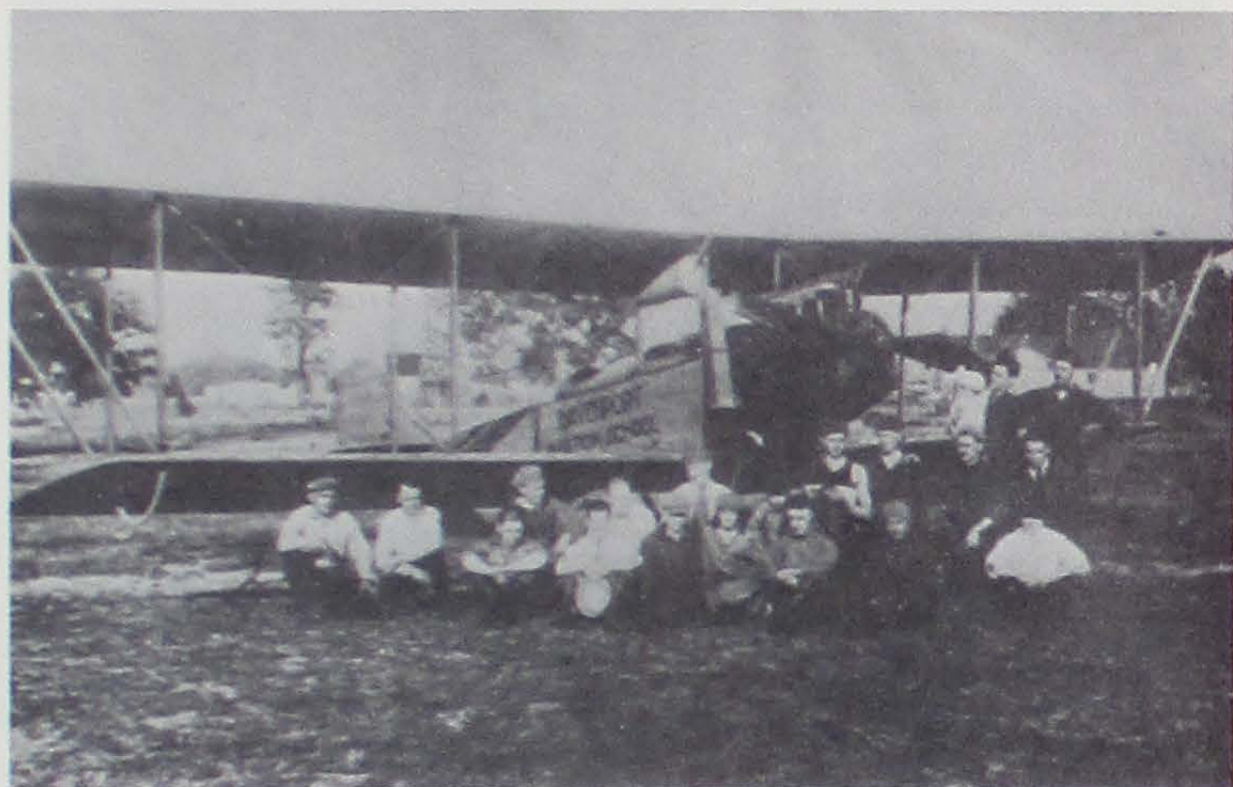
Now we were all anxious to begin our training. By this time the school had doubled and tripled and the first twelve of us began to receive flying instruction. Our instructor, Mr. Louie, said he had learned to fly in France.

"How old do you think Louie is?" Brierly asked one day.

"Oh, around forty probably," answered Lloyd. "He's sure hard to understand when he's excited, isn't he? You know he's nice and friendly, but somehow he never seems like one of us."

"You'll probably act snooty too after you learn to fly," said Sheriff. "I know I'll feel puffed up. Just think to go home and be the only one in town who can fly a plane!"





Our 1917 class of flying students at the Davenport Aviation School. As I was the only girl, the boys insisted I sit front row center.

All the students were young men who had sincere reasons for wanting to get in on the "ground floor" of aviation as one expressed it. Some knew they would be called to be soldiers in World War I and preferred the air force to ground troops. All were from good middle class families, and some had earned their tuition. One was from Bohemia (now called Czechoslovakia). There were at least thirty of us now.

Frank Kohout was the blond boy from Bohemia. He was quiet, sincere and well liked. While I never really dated any of the boys, I did have conversations with individuals apart from the noisy group. Frank (nicknamed Milwalk) told me about his life in Europe. There, those who wished went to trade school in lieu of high school. They were required to take courses comparable to our high schools, but the trade they chose was their major. After graduation Frank had come to America to live with his uncle in Milwaukee and of course to



"make his fortune." He was a "loner," spoke good textbook English, but many of our jokes went over his head. He often talked to me of his aspirations and his great respect for this country—America.

Lloyd Royer was an Iowa boy of medium height with black hair and eyes with long, dark lashes. He was adept at fuselage construction. Friendly, but reticent, Lloyd was different from "Sheriff," who was loud and blustery. He was a stocky, blond young man from one of the tri-cities—Rock Island or Moline. We called him "Sheriff" because he had intended going in for law enforcement until he was "bit by the aviation bug." He spent the day with us but went home across the river at night. Irrked by Mr. Louie's delays, he, too, was impatient to get into the air.

Mr. Louie made innumerable test flights. Some ended in slight disasters. Once he nosed over and broke the propeller. Once the motor died when he had only two hundred feet altitude.

"Why doesn't Louie start teaching us?" Babe complained.

"Oh, he's just learning to fly himself, didn't you know?" answered Greeves, who was one of the late arrivals and skeptical of everything and everybody. He was from Hollywood and felt a little superior to us.

"Keep your shirt on, or should I say goggles?" quipped Royer. "You'll get your chance."

Finally the day came—my first flight. The entry in my diary for that date, July 21, 1917, reads, "My first flight today. Altitude 6,000 feet. I handled the controls fairly well; that is, until the motor broke down. Tonight a bunch of us went riding in the Ford."

I'll never forget that first flight. We raced down the field, the engine roaring and all eight cylinders firing in perfect time. I felt the tail lift but scarcely knew when we left the ground.

"Why are we moving so slowly?" I thought to myself. The birds streaked through the sky. Mr. Louie hadn't reduced the acceleration. I was flying at last! Why didn't we go faster?





My first instruction with Mr. Louie in the Davenport plane was on July 21, 1917. We climbed to 6,000 feet, but I had no feeling of height, only of complete security, with those long, sleek wings on either side which seemed almost a part of me.

A tap on the head by Mr. Louie and a slight bank of the plane brought an end to my speculative thoughts. When I glanced back, he motioned below. I saw Suburban Island which we had just left. It had become handkerchief-sized and we were making a wide curve over the Mississippi. I had no feeling of height, only of complete security with those long, sleek wings on either side which seemed almost a part of me.

Again Mr. Louie tapped me on the head and raised his hands in the air, the signal that I was to take flying control. I moved the wheel slightly and immediately the wings tilted—the plane banked. Quickly I returned the wheel to neutral. Gingerly I pushed on the right rudder bar and at once the nose moved in that direction.

The sensitivity of the controls was my first flying lesson





When Grandpa Ben Sisler, Mount Carroll, Illinois, finally found out that I was learning to fly, he visited me at the Davenport Aviation School. A four-year veteran of the Civil War who had been seriously wounded at the battle of Champion Hill, he took his history-making first aeroplane ride with Mr. Louie in 1917 at the age of 74.

learned. When we landed, Mr. Louie castigated me with a blast of French—words not understood—but their import was unmistakable. Instead of banking by coordinating the rudder and ailerons, I used the rudder to turn while I used the ailerons to keep the plane level. Result—skids. I was so happy that I didn't worry too much about my blunders. At last I had flown!

I could hardly wait to write home—that I had been up in the air finally. Could it be? Had I really copied the birds?

I kept up a weekly correspondence with my family back in Ames. Mama's letters usually contained an extra dollar or two. Often she would query, "When will you be coming home? Soon, I hope. I haven't told Pappy and the girls (grandpa and my twin aunts) what you are doing."

She was afraid they would consider me a disgrace to the family. However, when my old grandfather finally found out, he came to Davenport to visit me.

"Hello, grandfather, nice you could come," the boys greeted him.

"Hullo, grand pere," welcomed Mr. Louie. "Want to ride with me?" This pleased my grandfather and he readily



donned helmet and goggles and took his "history-making" ride.

Grandpa had fought four years in the Civil War and had been wounded. His recreation consisted of a daily walk downtown to the post office and a few hours spent on a town bench, whittling and talking over old times with several other old soldiers. Grandpa was now a hero. The Mount Carroll Democrat came out with headlines, "Uncle Ben Rides in an Aeroplane." He had to tell everybody what it was like to go up in one of those "contraptions."

After Grandpa's visit, our instruction continued in earnest. The first class had each about 100 minutes in the air when Mr. Cook made yet another eastern trip. This time he came back with a new president of the company and presumably more capital. He informed us, "Now, boys, we'll begin to build our second plane *immediately*. Everybody be at the factory tomorrow morning at eight sharp. You'll meet Mr. Cresswell, our new president, then."

The next morning when Mr. Cresswell and his wife visited the field, Mr. Louie offered to take him for a flight.

Mr. Cresswell was tall, heavy (250 pounds), with light hair and blue eyes. He was English, wore a topcoat, a cap, and smoked cigars. He was well educated, and, judging by the clothes he and his wife wore, was well-to-do.

His diminutive wife was refined and meticulous and had dainty hands and feet. I thought her attitude toward her husband was overly solicitous.

"Now, Bert, are you sure you should go? You know your fear of high places," Mrs. Cresswell said in a trembling voice.

"I'll be all right, dear, don't you worry," returned her husband.

It was my lesson turn, but I was glad to forego the lesson in favor of Mr. Cresswell. He had some difficulty in getting into the plane so one of the boys helped him. "Now put your right foot about here." (He indicated one step up and over the trailing edge of the left wing.) "Now, one more step forward with the left foot. Hold to the fuselage for support.



That's it—now put your right foot over the cowl. You're in—just pull in the other leg. I'll have to let out this seat belt a bit. Curly was to go next, and she's kinda skinny."

He carefully adjusted the seat belt to fit Mr. Cresswell, noted that the borrowed helmet was fastened, and pulled down his goggles. "Don't try to look out sideways or the propeller slipstream might rip off your goggles. Be sure and keep your feet *off* the rudder bar and your hands *off* the controls."

I stood by Mrs. Cresswell, making small talk. "He'll be all right. I'm sure he'll enjoy it."

"Yes, I suppose, but he has a bad heart. He's overweight and gets easily excited," she replied.

By this time the plane was making the second circle of the field and had gained about a thousand feet in altitude.

"Oh, look at that," exclaimed a bystander, "he's diving."

"Oh, my God," from one of the boys. "He'll never be able to pull out in time."

The plane dived straight into the ground a few hundred feet from where we were standing. I ran for the phone in the little office at the back of the bandstand. "Hello! hello! Central, hello! The plane crashed; send help—fast!"

Mr. Cresswell, in the front cockpit, was killed instantly. The motor was driven four feet into the ground and wedged back against his body. It took axes to extricate him.

Mr. Louie was carefully and tenderly lifted from the wreckage in a broken condition. One side of his face was mashed in and bloody. His jaw was broken and he had internal injuries. He kept mumbling, "Froze, froze controls."

We students stood in shock around the wreck. Somebody said, "The longerons didn't splinter. It's a good thing Louie insisted that we wrap and dope them, otherwise he might have been pierced by splinters."

"Look how they splintered farther back behind the wraps," said Milwalk.

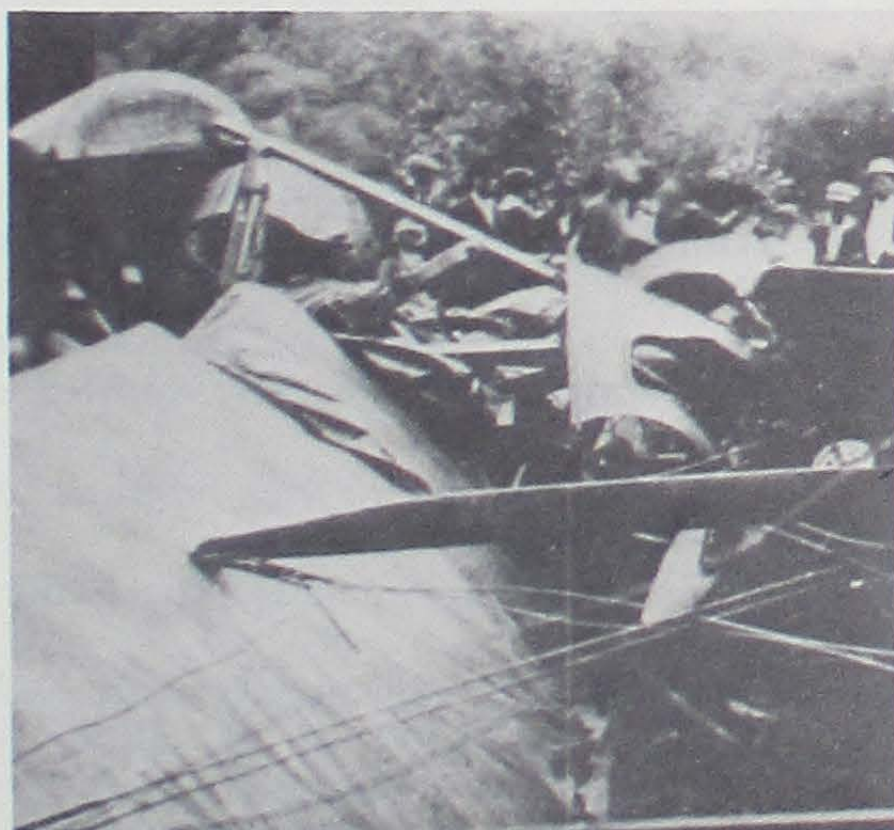
"Here, help me examine the wires," I said to Win. "Oh, I do hope and pray no splice I soldered gave way."

"I've been looking at the splices," said Paul. "So far as I





Our flying at the Davenport Aviation School came to an end on September 9, 1917 when the plane carrying our new president, Egbert B. Cresswell, and our instructor, Mr. Louis Boudor, crashed on Suburban Island. Mr. Cresswell was killed and Mr. Louie was seriously injured.





can see, all are intact. It wasn't a structural failure anyway."

"No, I'm sure Cresswell froze the controls," said Tex. "With a man that size and weight flopped over 'em, Louie couldn't budge 'em. I'll bet Cresswell was hangin' on to that wheel like iron."

That night in Mrs. Reginetter's little parlor, we discussed the day's tragedy and our prospective futures.

"When I get to be a pilot, I intend to carry a good-sized monkey wrench in the seat beside me. If a passenger or student freezes on the controls, I'll hit him over the head with it," vehemently declared Greeves.

"Yeah, what if you go into a tailspin? You'll likely get hit in the head yourself with a loose wrench floatin' around," said Tex.

"What do you all plan to do now?" inquired Lloyd.

"Guess I'll go down to Newport News," said Paul. "Anybody else want to go? I have room in my car for one—help buy the gas."

"You know the tuition there is \$600. Do you suppose Cook'll refund any of our money?" asked Spud. "Some of you never had *any* air time. You should get your whole \$400 back."

"Some of us have had about a hundred minutes. How much have you had, Curly?" asked Lloyd.

"Let me get my notebook. I've had exactly 100 minutes. If he doesn't refund any, that means each minute in the air cost me \$4.00."

"We might as well call it a night. We can't settle anything before morning. So long." Win dejectedly shuffled off down the street.

"Yes, we'll want to go up to the hospital tomorrow morning and see how Louie is," said Sheriff.

The hospital visit was discouraging. Mr. Louie was in critical condition.

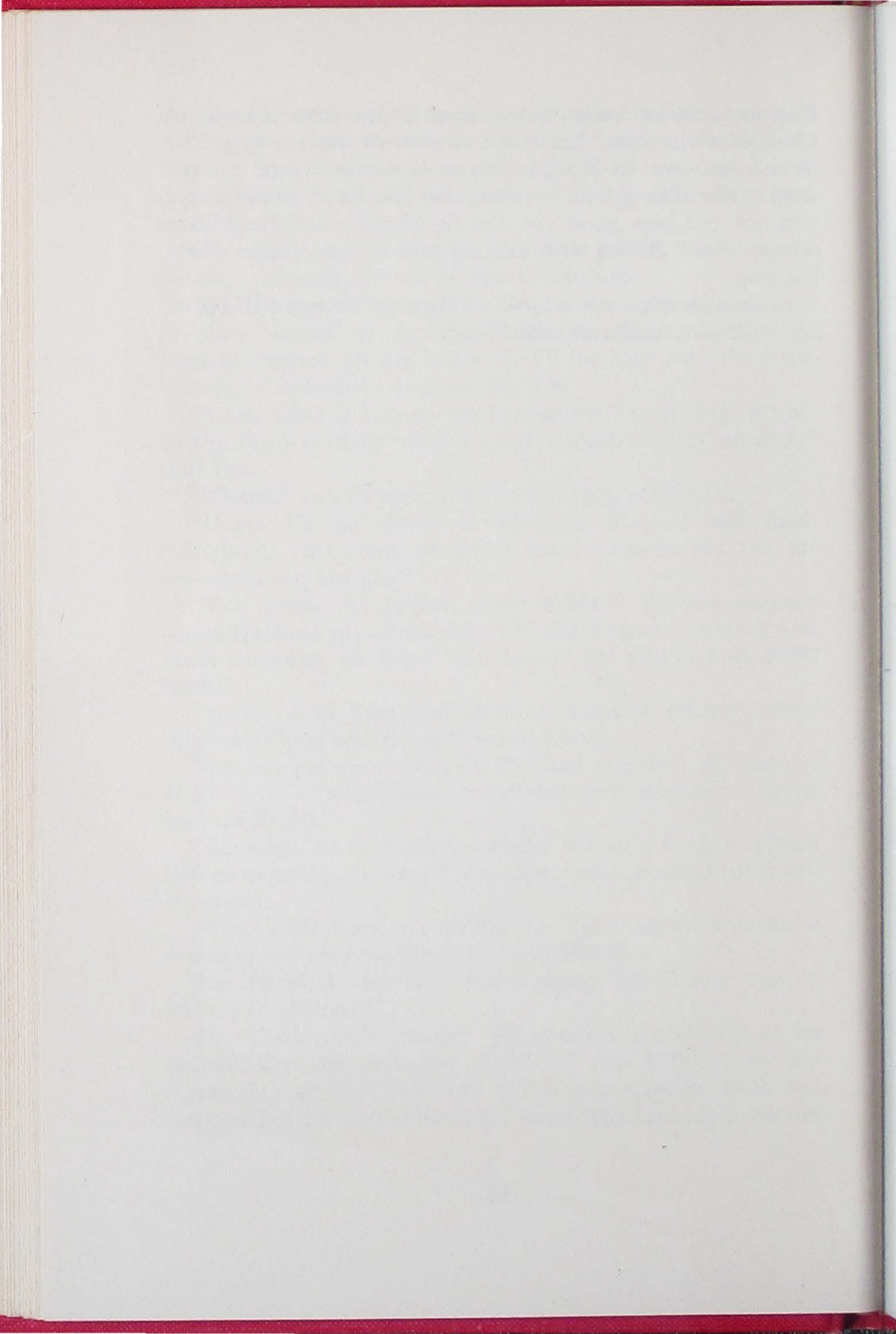
Mr. Cook made money adjustments with each of us individually. He refunded \$200 of my \$400. Now my instruction so far had cost \$2.00 per minute. Paul and Greeves left by car for Newport News. The Lathrop boys and



Huston went by train. Some went home. Several went to Chicago where they heard a new school was starting. The boys who went to Newport News said they would see me soon. "When we get done telling that Curtiss what a great gal you are and how good you can fly already, he'll be glad to accept you." Those encouraging words came from Earle Lathrop.

Huston shook my hand and whispered, "Keep a stiff upper lip. We'll get you there—somehow."







### CHAPTER III

I went to Chicago. Mort had sent a telegram to Mr. Peters, president of the new prospective school, telling him when I would arrive. Babe met me at the train, full of enthusiasm.

"You'll sure like the Peters, especially Mrs.—she's something. You know she smokes cigarettes just like a man. Say, here, have one." He extended a small box of very slender, oval-shaped cigarettes. They were perfumed and had Benson & Hedges printed on the top.

"No, thanks. You know I don't smoke. I never saw you smoke, either. What will your mother say?"

"Well, I'm almost eighteen, and no reason why I can't begin," Babe defended himself.

"I don't think the Peters have been a very good influence on you. Where do they live?" I asked.

"That's where we're going now. They have a suite—it's pronounced *sweet*—at the Blackstone Hotel."

"They must be well-to-do to live there." (I had some knowledge of Chicago—the Art Institute, the Loop, Lincoln Park and the Auto Show.)

We arrived at the hotel. I didn't care for the Peters. Mrs. Peters was overly made up and wore scanty attire. Mr. Peters was nervous, and chain smoked, and told me all their wonderful plans for their aviation school. I promised to meet them the next day. They said they would call for me. Babe took me to the Board of Trade Hotel, where I spent the night.

The next day, after several interruptions, Babe, the Peters and I started for the flying field in the Peters' Hudson Super



6. After two blowouts, we got there at 9:30 p.m. The field was in the Cicero area, about thirty miles from the downtown Loop.

In the meantime, Spud and Win, who were working at the field, had gone in to Chicago to meet me. It was too late for them to return that night since the last train out of Dearborn Station was at 11:30, so I stayed at the field and slept in their bed. The boys got back to the field about noon the next day and were relieved to find me.

"Where have you been?" Win demanded. "I hope you didn't fall for Peters' line and put any money down."

"No," I assured them, "I don't care for the Peters."

"You're wise," said Spud. "Their plane's not paid for and it needs extensive repairs. There's no immediate prospect of getting it into the air."

"Yes, and nobody to fly it," added Win. "There's not anybody on this field that can fly. Say, why were you so long getting out here? I'll bet Peters delayed on purpose so you couldn't get in touch with us."

"This flying game," said Spud, "it's sure discouraging. Curly, why don't you stop? It's bad enough for us."

"No, I can't do that. I'm going back in to Chicago and rent a room. I'll let you know where, as soon as I'm located. Babe must be staying with the Peters."

I got a ride in with Mr. Garry, a student from Minneapolis, who was pretty blue. He had put a lot of money into the Peters' school, and no flying.

"I saw you talking to that Brazilian this morning. Rather interesting fellow, isn't he?" Mr. Garry remarked.

"Yes, he gave me his card." I took it from my purse and read, "Mr. Sebastian Crane, Compania Swifte en el Rio Grande de Brazil del Sur."

"Such a name and such an address! No wonder he hands out cards instead of just telling his name and where he's from."

"I hear he's trying to buy a plane. I haven't seen any except a couple of partially-built ones out here. He asked me



where he could get one. I told him the only place I knew was the Curtiss factory at Hammondsport, New York, but they're building training planes for our new Air Corps. I wonder what the boys told him about me? You know he offered me a job as pilot of the plane he intends to buy. Said we'd go back to Brazil and that I could teach him to fly first."

"I understand you are a qualified pilot. Your friends kept saying, 'Just wait till Curly gets here—then we'll have a real flier on this field.' "

I laughed. "Don't let them josh you. I've only had a hundred minutes in the air and that doesn't make me a qualified pilot."

Back in Chicago I bought a paper, located a room for rent, and got a job in a factory packing candy boxes. Win and Spud were rebuilding a plane for a Mr. Molar. They were getting very small wages, but they insisted on coming in to Chicago by interurban train almost every night to see how I was getting along and to keep me posted on things at the field. They also ate, with relish, any candy I brought home from the factory.

"The creditors are after Peters," Spud informed me. "Wonder if they'll put a lien on his plane?"

"Yes, and they've kicked him out of the Blackstone," added Win. "Has he contacted you any more?"

"Why, yes, I was out on the town with him and his partner last night."

"Out on the town? Why, we were here till after ten," said Spud.

"I know. He called me about eleven o'clock and said he wanted to keep his promise and show me around Chicago at night. I thought, 'Why not?' They came about 11:30 in a taxi. There were only the two men. They said something about Mrs. Peters being indisposed."

"Where did you go and what did you do?" demanded Win.

"First we went to the File Cabaret (my first time in a bar). They ordered beer; I ordered gingerale. Next we went to the Ophelia. There was a dance orchestra there. They pressed me to order something stronger. I ordered vermouthe."



"Vermouth!" wailed Win. "Don't you know what that can do to you?"

"That's the only liquor name I know. A boy back in college used to boast of how much vermouth he could drink. Anyway, I took a sip and didn't like it. They were drinking beer. Several times they suggested I finish my drink, but I couldn't. The talk was entirely about aviation prospects, especially theirs."

"They didn't talk you into anything, did they?" asked Win.

"No, I made no commitments. I didn't tell them I knew they had been evicted from their Blackstone suite. I just said, 'Let me know when your plane is ready for the air.' That's all there was to it."

"Well, that's a relief. Say, I guess you *can* take care of yourself," said Spud.

A letter from Newport News! I was accepted at Curtiss! I wrote my mother and told her I needed \$400. "That, with my \$200 refund, will make the necessary \$600 tuition. I have some money saved from my job here and from my job in Davenport."

At Davenport I had printed snapshots for Mr. Smutts, a local photographer, who was a bachelor and lived with his mother. He was a colorless, effeminate man of middle age, with hands discolored from photographic developer. He had one other part-time helper, a mother of three children, and he was very thoughtful and considerate of us both. He would pick up rolls of undeveloped film left at a drug store and develop them in his darkroom. I made prints from these films and put them in marked envelopes, along with the price. He allowed me to do this at my convenience, as long as no backlog developed. It took me an hour or two a day, and often I did this at night. When I worked at night, several of the boys came with me. That way we finished quickly. All the pictures taken during my Davenport stay were printed in Mr. Smutts' little studio at night.

The money I had saved was not enough for the ticket to



Newport News, Virginia. Determined to get there, I could think of only one way—'ride the rods.' I had often seen hoboes riding freight trains. All freight was shipped that way, as the era of trucks had not begun. There were few paved roads, and local freight was still hauled by horses.

I packed all my belongings in two suitcases and expressed them to myself at Williamsburg, Virginia. Wearing two suits of long underwear and a heavy, highnecked, slip-on sweater under my jacket, I was prepared. I wore high shoes and leather puttees on my legs from ankle to knee.

On September 30, 1917, after I left the express office, I bought a ticket from Dearborn Station, Chicago, to Griffith, Indiana—about thirty miles. I got there about six o'clock in the evening.

It was cold and starting to snow as I walked down the tracks to the first street crossing, where a watchman manned the stop gates. He had a cozy little cubicle in which a brisk fire burned in a small stove. It was quite dark by this time, and I stayed there visiting with him while several trains passed. Finally a freight came, not too fast, traveling in the direction I wanted to go. I seized the iron handle on one car and swung aboard, wondering afterwards what that old man thought of me. I climbed to the top of the car. As the train picked up speed, the cold and the sleet became unbearable. Realizing that I wouldn't last very long up there, I walked the tops of the cars back toward the caboose. When I jumped from one car to another, the wind and slippery car tops almost defeated me. When I thought I couldn't jump another one, the train began to slow down—a water stop. I climbed down the iron ladder and heard the brakeman say, "Good heavens, it's a girl. She's nearly frozen."

I couldn't talk and could barely walk. They helped me up the caboose steps. Inside, a fire burned in a little potbellied stove. There were double bunks against one wall. I was only conscious of the delicious warmth. They helped me climb onto a blanket-filled bunk. That's the last I remember until I was gently awakened near morning.



"How about some coffee? I've got an extra sandwich, too. My wife always puts in too many." I could smell the coffee boiling in a large pot on the little stove. The pot fitted in an indentation on the stove top to keep it upright when the train jerked. I ate with relish.

"Thank you for helping me. Riding freight trains isn't what I thought it would be. I'm not a hobo really."

Then I showed them my letter from the Curtiss School and told them who I was and what I had been doing. I also showed them my Eastern Star membership card and identified my father as a Mason—Blue Lodge, Knight Templar and Shriner. (He had always told me if I ever needed help to ask a fellow Mason.) "You've got guts, girl. We'll help the best we can. We'll get into Huntington (Indiana) about 7:30. That's the end of our run." The elderly conductor turned to his brakeman. "What do you think we better do then?"

"Why can't we back up to that other caboose and slip her into it? I'll tell Jim she's there and why."

They backed the train to the other caboose on a nearby siding. I slipped into it and hid in a little closet.

"Now don't come out until the train is in motion," warned my first friend. "We'll tell Jim all about you." I leaned back against a pile of extra coats and dozed until I heard a light tap on the door.

"You can come out now. I'm Jim Corbet and this is my partner, Jack Bailey. We're both Masons—Blue Lodge—so's the engineer."

Jim Corbet was a tall, lanky, slightly stooped man in his fifties. He had a pleasant, assuring smile and one gold tooth that showed when he talked. Mr. Bailey was just the opposite—he was short, stocky, and smiled little, but he appeared to inspire trust. Both wore the traditional railroad attire—blue striped overalls and caps with long bills.

Their caboose was much like the first one I had ridden in the night before. (Coupled to the rear of freight trains, a caboose is a small, extra car that provides living quarters for the crew. Lanterns and extra tools are kept there.)

"Tell us about this escapade you're embarked on."



"It isn't an escapade. I've been accepted by the Curtiss Aviation School at Newport News, Virginia, as a student. They've never accepted a girl before. I've already had a hundred minutes in the air, and after a few hundred more, I'll be a qualified pilot."

"You know, I've never seen an aeroplane," said Mr. Bailey. "But I have seen balloons."

I told them all about the Davenport school and showed them a few snaps I had in my wallet, together with my other articles of identification. I carried my \$600 in the sole of one shoe. They told me about their families, and Mr. Corbet had some pictures of his grandchildren.

Freights do not travel fast. They make lots of stops, and they make lots of jerks and starts while shifting certain cars onto sidings. The men were often out of the caboose directing these operations with hand signals and sometimes lanterns. Their caboose was equipped with a cooking-top stove and there were pans and a skillet in a cupboard. There was also a bag of potatoes and onions.

"Would you mind if I cooked a meal for us?"

"Sure, go ahead. You'll find some makin's in the cupboard."

I peeled potatoes and chopped onions and soon had a big skillet of hash browns on the back of the stove. After the next stop, Mr. Bailey brought in a big steak. I cooked that and made gravy.

"Say, this is great; just like home. Wish we could keep you on a spell," said Mr. Corbet.

Their run ended at Columbus, Ohio. They let me off at a water stop before we came to the yards. Both advised and almost insisted that I go into Columbus to the Division office and ask for a pass. They offered me a few dollars each, but I refused. I partially bypassed Columbus and caught another freight.

I had little time to enjoy either the people or the beautiful country. "The climate has become warmer as I travel south," I noted in my diary. "Columbus is quite an old city and they call the blocks squares."



Another entry read, "The scenery here is beautiful. The high hills are covered with trees and the people say 'fer', 'I reckon' and 'I done'. The conductor, when he calls 'all aboard,' sounds like he says, 'olive oil.' The trees are still green and yellow and the grass dark green. It is almost too warm in daytime, but cool at night."

My entry of October 2, 1917: "I've had an awful time today. Left Hobson at 5:20 this morning after sleeping or trying to sleep on a hard depot bench. I tried to get a freight but couldn't. I came clear to Gauley Bridge from Hobson and crossed the Kanawha River in a rowboat."

A little colored boy was fishing from an old dilapidated boat pulled partly out of the water onto the bank.

"How's the fishing, Sonny?" I asked him.

"No good. Ovah yar they's bitin' but I caint git thar."

"Why not? You've got a boat."

"The watta come in so fas' I caint dip it out fas' 'nuf an' row same time."

"What if I dipped while you rowed? It's not very far across. But then, how would you get back?"

"Oh, I live ovah yar."

"Well, what's stopping us? Let's go!"

He rowed and I bailed, and it wasn't long before we were on the other side. I thanked him and gave him some lemon drops and walked down the dusty road about a mile until I came to Gauley Junction.

There I was trapped. The road and the railroad tracks paralleled a small stream with steep mountain slopes covered with scrub growth on either side. A very small depot squatted between the road and the tracks, presided over by a rather taciturn old station agent. I saw no dwellings, but there might have been some farther along the road. I questioned him about freights. He told me there would be none that day—only one passenger train in the late afternoon.

There, all alone in a practically deserted nowhere, I took stock of myself and burst out laughing. Never did I think to find myself in a place like this. I'd never been so hungry. After counting my dwindling supply of cash, I bought a



ticket for a station farther along the line. The train came about 7:30 that evening.

Just before it pulled in, the old man opened up and gave me some advice. "Better take them sparklers outen yer ears. I seen fellers knocked over fer less." I thanked him and turned them around with the stones hidden behind my hair. They were little diamond earrings my mother had given me when I had my ears pierced.

Not long after I boarded the train, the conductor came through and handed me a pass. "Did you see that fast train that just passed?"

I said, "Yes, I saw it."

"When we stop next, you are to get off this train and get on that one. It will be waiting."

When our train stopped, I got off and was met by a man who introduced himself. "I am Mr. Rockwell, the division superintendent. Will you please get on this train?" Silently I got on and took the seat he indicated. "Now what?" I wondered. "Surely they won't have me arrested?"

In a few minutes a young man came to my seat and asked me to follow him to the diner. There, at a large table, were four distinguished-looking men, including Mr. Rockwell. They questioned me and again I told my story and produced my identification. They gave me a pass to Richmond, Virginia. Mr. Dunlap of Huntington gave me his address and asked me to let him know when I got my license. By the time I finally got that license, lots of things had happened. I had been involved with two governments and a war had been fought and won. If he has read any of the Earhart books published over the past years, I wonder if he recognized my name.

When I got off the next morning at Richmond, the young man I had met the night before appeared. He handed me his card. That was my first chance to really see him. He was tall, handsome, carefully groomed, and not much older than I. The happenings of the night before had been so hurried and vague—almost unreal. I might have thought it was only a dream had not Mr. Richard L. Beltham appeared in person.



He was very solicitous. "I hope you got through the night without too much discomfort. It was too bad there was not an extra Pullman berth on the train." He continued, "You can get breakfast in the depot restaurant. Order anything you wish, then please come to my office. It's just around the corner at 701 First National Bank Building."

After a breakfast of bacon and eggs, I followed his instructions and went to his office. There I met Mr. King, an official of the Baltimore & Ohio Railroad. He gave me a pass to Newport News. When I told him about my clothes at Williamsburg, he marked "stop over privilege" on it.

I thanked him and went out to see something of Richmond before my train left for Williamsburg. I was sorry I had not been able to see the beautiful Virginia mountains which we had traversed the night before.

At the time, I wondered how the division superintendent, Mr. Rockwell, had found out about me, but a little reasoning clarified everything--the telegraph, of course.

Probably the crew on my first freight, or, more likely, those on the second, alerted the officials ahead to be on the lookout for a girl traveling alone, on her way to Virginia. I wonder how they described me--probably, "a red headed female; wearing man's attire (girls didn't wear pants then); not a menace, but determined."

I can imagine the gossipy conversations which I must have furnished for the lonely telegraph operators at small stations along the way. Every station had such a telegrapher who tapped out, in Morse code, train information and instructions between division points. He was also ticket seller, mail and freight handler, and janitor. All telegraph keys were kept "open" and any message on the line could be heard by all the operators. Time hung heavy on some of those at small stations; and in slack times, or especially at night, they gossiped with other operators along the line.

If, as I suspected, one of my so-called friendly crews reported me, I'm sure they did it for my own good and I'm still thankful for their kindness.



When I arrived at Williamsburg, I picked up my suitcases and changed into a dress in the depot rest room. The next train to Newport News would not arrive for several hours, so I walked down the main street of the town. Some of the buildings were being restored. One building had a sign, "Wythe House—Headquarters of Gen. Washington." I passed a bench where an old man sat all alone. (I knew he was a Civil War veteran.) He made me think of Grandpa; he had a cane and was wearing an old cap which I recognized from pictures to be a "Reb" cap.

"Good mawnin'," he called. "Yo'all be a tourist?"

"Yes, I'm admiring your little city. Everything is so clean and the houses hardly look lived in."

"We're fixin' everythin' up, jes' like it was in the old days befoah the wahr. The cawt house ovah yondah—it's a museum now."

"Have you lived here all your life?"

"Since Heck was a pup—ha! ha! This usta be Middle Plantation—usta be the state capital. When they moved the state capital, it was renamed Williamsburg. That was in honah of King William III. Would yo'all like to see the William and Mary college buildin's? They's ovah this way a spell."

"I'd like to see where the Union Army captured the Confederates who were in retreat. My grandfather told me about that and about General George McClellan. Grandpa fought all four years of the war and was wounded at the battle of Champion Hills during the siege of Vicksburg."

"Your grandpappy a Yank?"

"He came from Illinois and fought under General Grant. I have his old cap and ball pistol."

"Scuse me, I got to be goin'." He picked up his cane and hobbled off down the street. I realized that sometimes "silence is golden."



## CHAPTER IV

My diary of October 5, 1917 reads: "Arrived Newport News 5:30 p.m. Went to dinner with Mr. Ballard (head of the Curtiss School) and his wife. His secretary tried to help me find a room—no luck. I stayed the night with her."

The next morning at the field I had a reunion with the Davenport boys who were bubbling over with enthusiasm and tried to show me everything at once.

"Just look at this hangar!" (We had none in Davenport.) "Here are two 'Jennys' besides the one on the field, all ready to go. This one needs a little work. See the extra wings racked on that side? There's an extra fuselage too."

"Now we'll go see the woodworking shop," said Doug.

"Wait! What's that odd looking thing on saw horses?" I asked as I walked to the far corner of the hangar.

"Oh, that's the Flying Goose. It was an experiment, but it really flew. There are some pictures of it in the air, up at the office. Come on over to the woodworking shop. You'll like Mr. Wood." We entered a building about 20 by 30 feet.

"Hello, Mr. Wood, here's Curly, the girl we told you about. Meet Mr. Wood. He does all the repairs."

"Pleased to meet ye." Mr. Wood extended a large, bony hand and gave me a hearty handshake.

I liked him on sight. He was tall, thin and a little stooped, with a large, sturdy frame. Later I learned he was a Blue Ridge mountaineer, and quite a philosopher. I still remember stories he told of his "growin' up" days in the mountains.

Next we visited the machine shop. It was presided over by Mac. I don't think I ever heard his other name. He was a first





The "Flying Goose," a 1916 experimental plane developed by Glenn Curtiss. Unorthodox in design, it really flew.

class engine mechanic, and talked little. Later I learned from him how to pour hot babbit bearings; how to gently scrape and work them in. He always had an OX-5 crankshaft in the vise and was endlessly working-in connecting rod bearings.

At Mr. Ballard's office I met the instructors Carl Batts and Eddie Stinson. Carl—we students called him Mr. Batts—was a tall, well-built young man with light brown hair and gray-blue eyes. He was perhaps ten years my senior. He had a stern mien that made the more timid students fearful of his displeasure, but he was a dedicated flier. I was always nervous in his presence.

Eddie Stinson was effervescent and projected camaraderie. I'm sorry to say he sometimes partook a little too freely from the hip flasks that were popular in that era.

The two instructors shook hands with me very formally, but I detected a slight grin on Eddie's face.

"Curly—oh, excuse me, Miss Snook, that's the way I hear the boys speak of you—I have assigned you to Mr. Batts'



class," Mr. Ballard informed me. "We expect a good performance from you."

"Thank you. I assure you that I came here for one purpose only, and that is to learn to fly."

I noticed Huston in the background motioning to me. He told me he had found a place for me to stay with a Mr. and Mrs. Oliver. I told Mr. Ballard, and he suggested that I pick up my things at his secretary's, get settled, and start my first lesson the following day. Pat Paterson, a student from the midwest who had a Buick roadster, offered to drive us. Pat had just soloed and hoped to be kept on as an instructor.

Newport News, a city of about 5,000, had, almost overnight, grown to 60,000. There were two embarkation camps in the vicinity, and many relatives of the soldiers crowded the city to spend the last few days with their loved ones before they sailed for Europe and World War I. All hotels were filled, and the hospitable Virginia people opened their homes.

Mr. and Mrs. Oliver were an elderly, childless couple. Mrs. Oliver was short and plump and oh, so motherly. She always wore black dresses, and usually a long white apron fastened with ties around her waist. Her hair was dark, sprinkled with gray, and she wore it pulled back and fastened into a small knot held by a comb and hairpins.

Mr. Oliver was extremely tall, and slightly overweight around the middle. He had dark hair and eyes and a straggly black mustache that dripped when he ate hush puppies and mustard greens cooked in ham broth. He tied his napkin around his neck at meal times. He kept a decanter of sherry on the sideboard and sampled it often.

I loved the hot batter bread and hot biscuits that were served at every meal. I never saw cold sliced bread served anywhere while I was in Virginia.

The Olivers had lived their early lives on prosperous plantations, but now lived in a small but comfortable home which was filled with beautiful and authentic antiques. Mr. Oliver had a little neighborhood store, but Mother Oliver was always complaining, "We ah so po' we can only affo'd a cook."





Student group at the Curtiss Aviation School, Newport News, Virginia, 1917. Back row, second from left, Eddie Stinson; third from left, Carl Batts (no helmet), my instructor. I am fifth from left.

They had rented a room to young Lieutenant Lilly and his bride for the few remaining days of his stay in camp. Mr. Dunn, an elderly widower and druggist, took two meals a day with the Olivers. They took me in and "took me over." Mrs. Oliver liked to take me to visit her friends, and her friends came to call on me. When any of the boys came, Mr. Oliver cornered them and asked all manner of questions as to their family background and finances.

In the Olivers' young days, no southern girl was allowed to go out with a young man unless her parents knew all about his family and approved of him. This was amusing to the boys. Pat Paterson called the Olivers the F.F.V.'s (first families of Virginia) and joked a lot with Mr. Oliver. The Olivers never would take any money from me for room and board, so I helped all I could. If the cook left early after



dinner, I washed the dishes. On Saturday night I helped Mr. Oliver in his little store. But my mind was on flying.

The second day I went to the field and had 38 minutes air time. Mr. Batts was not too happy with my performance. I had difficulty adjusting to a different control. The Davenport plane was equipped with a yoke and wheel; these Jennys were stick. Side to side motion operated the ailerons; ahead and back, the flippers (dive and climb). I over-controlled, as the slightest movement on the stick brought instant plane response.

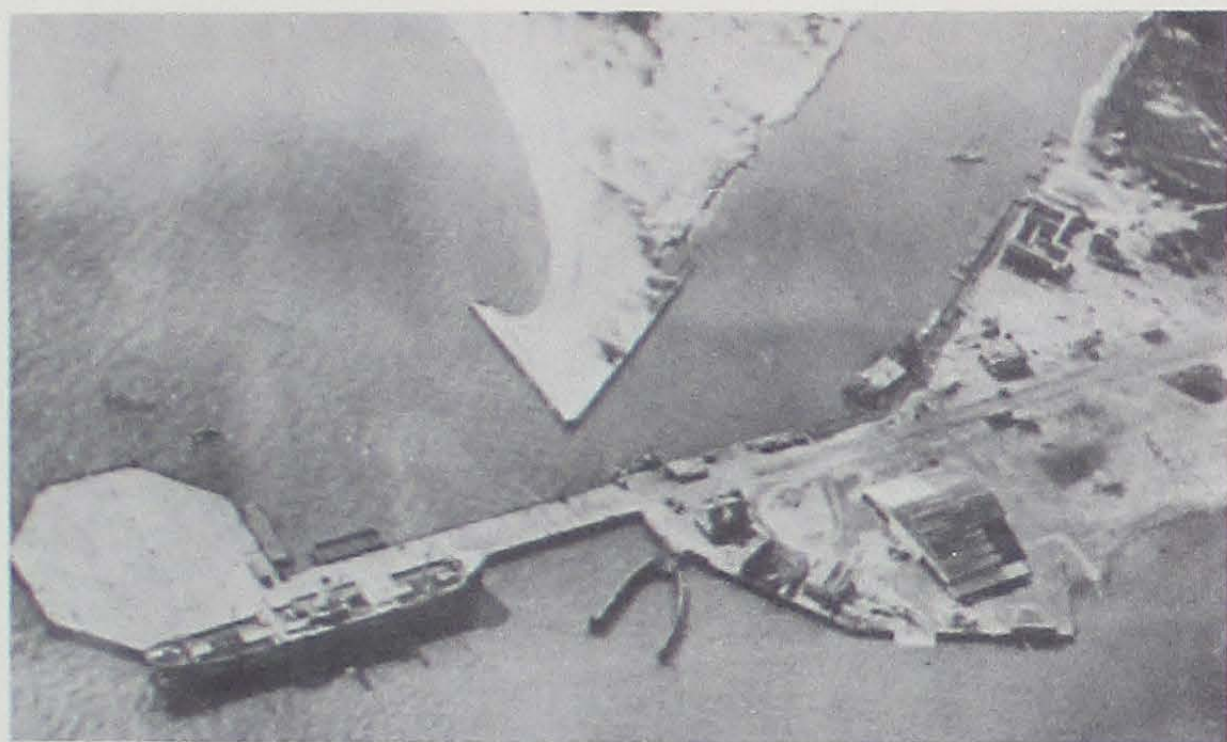
Our field was on the shore of Hampton Roads, a sheltered body of water which opened into the Atlantic. Usually a dozen or more somber, drab colored, camouflaged transport ships were moored in the Roads. They would be quietly and secretly loaded at night with our soldiers, then slip out to sail in convoy to Europe and World War I. In a few days others would take their places.

My third day on the field was full of troubles. Mr. Batts and a student landed on a roof and smashed a plane beyond repair. Stinson's machine broke a landing gear which pushed up through a wing. I was up for nine minutes, but did not do well. My diary states that it was foggy, and that finally I went downtown with some of the boys. We had a group picture taken that day.

The following day, after they finished repairing a tail post on No. 10, I got in another fifteen minutes and did much better. On Thursday I was promoted to the rear seat. The front seat is for passengers and beginners.

I was becoming better acquainted with the other students, but there wasn't the camaraderie of the Davenport school. Lessons went on at a faster pace. The boys were tense and troubled, and some carried flasks of liquor in their hip pockets. Eddie Stinson, nearly always slightly intoxicated, gave me my final acrobatic instruction. He was cold sober that morning, and he solemnly told me, "Now, Curly, when you do acrobatics, *always* pick a good, safe, high altitude. Don't be such a fool as I have been." I'd seen Eddie come out





1917 aerial view of the Atlantic Coast Aeronautical Station (Curtiss Aviation School), Newport News, Virginia. In the center is the Norfolk ferry slip (U-shaped) in Hampton Roads. The large building in right foreground is the Curtiss hangar and the small buildings house the shops.

of a loop so low that the wheels of his plane almost grazed the hangar roof.

Every few days somebody would solo, and, with the proper credentials, go north to Langley Field or Mineola, Long Island, to become a U. S. government instructor.

We had many setbacks and delays. Mr. Batts went up to Washington for a few days, but it was several weeks before he returned. I became No. 1 errand "boy." When anything was needed uptown, I was usually the one sent, especially if no auto transportation was available. A street car ran from uptown Newport News down past our hangar buildings to the Norfolk ferry terminal. We were acquainted with the street car crews. While they waited some time for a ferry to dock, they would spend the time on our field. I could ride the cars free whenever I wished, and stood up front with the operator



while he briefed me on streets, topography, people, customs and history.

We bought quite a few things from a hardware store on Jefferson Avenue. This store was in the middle of a block in the black section. My errand trips were usually made in mid morning, and there were few passengers riding at that time. The conductor would ask me, "Where to this time?"

"Central Hardware," I'd reply.

"Well, make it snappy and I'll wait." He would, too—hold his street car in the middle of the block while I ran in and got the needed part or tool. Usually the order had been phoned in ahead and I only had to pick it up and run back to the street car.

My errand running and volunteer work in the machine and woodworking shops paid off. Both Batts and Stinson were authorized to give me extra flying time.

When it was too foggy or windy to fly, I rode the ferries to Norfolk. Captain Mindy, pilot of one ferry, often came to our little woodworking shop for a cup of coffee. The first time he came in after my arrival, he invited me to ride the ferries.

"I'd be rightly honored if you would take the trip across the bay with us—now—or any time."

"Thank you, Captain, I'll be glad to at the first opportunity."

The next time we had a foggy, windy day, Mr. Wood said, "Why don't yo'all take a trip with Cap'n Mindy? No chance of flying today; tomorrow either, from the looks of those clouds."

I went over to the ferry dock. Captain Mindy was on the top deck directing the two lines of cars on the lower deck. They were carefully placed and blocked.

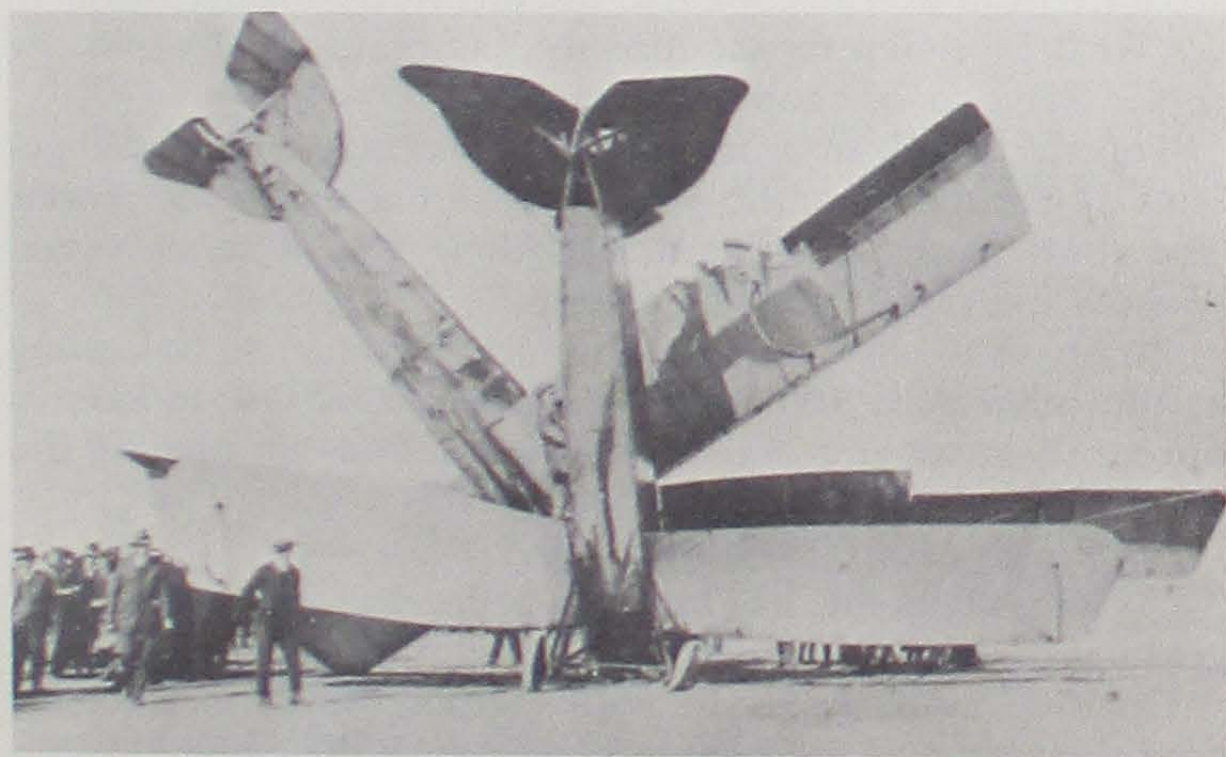
He motioned me to the right stairs and called, "Come on up."

I went up the stairs to top deck. When the cars were all placed to his satisfaction, he turned to me. "We'll go up to the pilot house on the other end. After we're launched and the mate comes up, I'll show you around."





Eddie Stinson had an effervescent personality, enjoyed his liquor, and loved to fly. Here he is stunting over Newport News. It was Eddie who gave me my final acrobatic instruction and these words of wisdom, "Now, Curly, when you do acrobatics, *always* pick a good, safe, high altitude. Don't be such a fool as I have been."



Crackups at Newport News did happen, but few were as spectacular as this one.



After a communication of toots, the big paddle wheels began to turn and soon we were out on the gray, white-capped sea. The swells were high and deep by turns. We rode them at an angle. Norfolk was six watery miles ahead. When the mate came up, Captain Mindy turned the wheel over to him. "Now we'll go below. Would you like to see the engines?"

"Yes. I guess the engines are the life of your boat."

"We have auxiliaries; they're diesel and quite dependable."

We entered the clean, oil-smelling engine room which took up half the inward part of the boat. "My, how bright and shiny. Who cleans all this brass?" I asked.

"The engineer. This railing is to keep anyone from accidentally falling into the drive shafts. Sometimes the seas get pretty rough."

We left the engines and climbed several steps to where the cars were parked.

"You see we have the cars parked in two lines on either side. We put an equal number in each lane for balance."

A little farther on we again went down a couple of steps. This was the galley. It was at one end of the engine room but separate from it. The cook had biscuits ready for the oven.

"We'll be down to eat directly," Captain Mindy told the cook. "Have to visit top deck first."

Top deck had an inner glass-enclosed area with passenger seats all around the outer wall. A snack bar was in the center. The third mate, or steward, was there to sell candy, gum, peanuts and cigars to the passengers.

"We have to close this bar while we're unloading or loading at the other side. We don't have a man available to keep it open. All hands are needed elsewhere. You can operate the bar while we load if you wish."

"I'll be glad to if it will help you."

"It won't help me, but sometimes the oncoming passengers get kind of irate when they can't get smokes."

On the way back, I rode with Captain Mindy in the pilot house. He showed me how to keep the middle of the bow on course. There was a long pole about ten feet long protruding



from the center of the boat's top deck. It had an orange-sized silver ball on the end. "Just keep that ball pointed at that light tower over there and you'll be on course. If it's too foggy, then we have to steer by compass."

"How far is it between Newport News and Norfolk?"

"Just six miles. By the way, I heard you say you might be going up to New York. If you're interested in going by boat, I'll introduce you to the captain of the Hamilton. It'll be slow, but it's a nice trip."

"I'd love to go by boat, but I won't be going until I solo. Then I hope to get on as instructor at Mineola."

When I left the ferry, they gave me a box of candy, a basket of grapes, and a standing invitation to ride whenever I wished.

After Mr. Batts returned from New York, I began logging air time. I heard him tell Mr. Ballard that he wished he had more students like me. He said to me, "You're finally improving from a rank impossibility."

From my diary of October 20, 1917: "I'm pretty happy today. Mr. Batts told me it was *unfortunate*, but that I was doing well."

The boys said, "Batts was talking about you in the lunch room today."

"What did he say?"

"He said he intended to finish his class by the end of next week or kick 'em out. Somebody asked about 'the girl,' and he said, 'She'll probably solo first'."

"My, that's good news. I'm ready. That solo can't come too soon."

"I heard him say something else," said Huston.

"What?" I asked.

"You'll get too swelled up if I tell you," he answered.

"No, I won't. Tell me."

"He said he had only one flier in his class and she was doing fine."

I knew Mr. Batts was not one to joke and I hoped what the boys were telling me was true.

My diary entries for the next few weeks are mostly about





From my diary at the Curtiss School dated October 20, 1917, "I'm pretty happy today. Mr. Batts told me it was *unfortunate*, but I was doing well."





shows, dances and trips. I made a trip to historic Old Point Comfort. Another was to Camp Stewart (embarkation camp), where our car got stuck in the mud. The weather was becoming wintry—foggy and cold. Ice gathered along the shore of Hampton Roads. This wasn't flying weather. We went out in the country and brought back a car load of Christmas trees.

Mr. Wood invited me over to their home for eggnog, but Mrs. Oliver wouldn't let me go.

"They ah not our kind. They come from the mountains and many have nevah wahn shoes."

"I love to hear you talk, but why do you talk like the Negroes?" I asked.

"They talk like us," Mrs. Oliver corrected.

The Woods were bigots, too. Once Mr. Wood almost pushed a black man off a crowded streetcar because he was too close to me.

Many exciting things were happening on the field.

One highlight was a visit to the school by Major Baldwin. I still pictured him as the daring young balloonist whom I had read about in the college library. Now he was a gray haired, portly gentleman with a kindly, reassuring voice.

"Just finish your training, and after this war is over, I'll buy a couple of planes and start an airline. You can be my No. 1 pilot," he told me.

But—a notice on the bulletin board one December morning changed everything. It read, "All flying from this field must cease by order of the security division of the U. S. government."

Some of the boys whose training was still incomplete, went north to the government fields, hoping to be taken on as instructors. Percy Kirkham was manager of the field now. There were paid-for lessons not received.

"Just wait, fellows, all's not lost," he said. "Glenn Curtiss has been preparing for this—maybe he had an inkling—anyway, he has another school starting down in Florida. That's where Bennett went." (Bennett had been a part-time instructor at Newport News.)





A highlight of my stay at the Curtiss School was meeting Major Thomas Baldwin, head of the lighter-than-air division of our government. Here was the daring young balloonist whom I had read about, but now, in 1917, he was a gray-haired and portly gentleman with a kind, reassuring voice. "Just finish your training, and after this war is over, I'll buy a couple of planes and start an airline. You can be my No. 1 pilot," he told me.

"I don't see how they could ever believe that we would admit any spies in this school," said Pat.

"Well, we do fly over those transports, and how do they, or we either, know who's a spy or who isn't? Why, Curly here might be one."

"Oh, quit razzing Curly," Earle stuck up for me. "You know she's trying as hard as any of us to get to be a U. S. instructor."

"Did you see that piece in the paper this morning?" Mac turned to Mr. Kirkham. "You sure told 'em."



The newspaper article he referred to was an interview that a reporter had with Mr. Kirkham the day before. Kirkham defended the school against the reasons advanced for closing it. He said there was no possibility of a German spy gaining admittance, as every student was carefully investigated before being accepted. The suggestion that a student, while in the air during lessons might take pictures of Hampton Roads, he labeled as impossible.

"No student could carry a camera into the air with him capable of taking any pictures of value," he stated. "There are always two in the machine—the instructor and student. The instructor sits in the back seat for the first 300 minutes of instruction and can see everything a student does. When the student is ready for the rear seat, he is too busy operating the machine to be able to take pictures. Even when a student solos after about 500 minutes, he is not skilled enough to operate the plane and take pictures at the same time."

He also said it would be impossible for a camera to be fastened to the bottom of the fuselage because of daily plane inspections.

"I'll get in touch with Curtiss right away," promised Kirkham, "although he probably knows. Most likely we'll have to ship some of this equipment down south. I don't know what's there now."



## CHAPTER V

The next day orders came to disassemble some of the planes. We worked until after five in the afternoon. Mr. Ballard, who had returned to direct the move, said I might drive down with Jim (a new mechanic) and his wife in Carlstrom's Buick, but I didn't. Victor Carlstrom was a much loved early record-holding pilot who flew Curtiss-built pushers. In 1916 he had made a record flight from Chicago to New York, flying the 967 miles in 8 hours, 28 minutes and 30 seconds. He was killed in a crash shortly before I arrived at Newport News, and his car was still there.

The entry in my diary for January 18, 1918 has me on a Pullman, Miami bound. I remember my first glimpse of beautiful tropical Florida through the partially raised blind. We had stopped at Palm Beach. I dressed quickly and went to the observation platform at the back of the train. Pat, who was also traveling by train to Miami, joined me almost immediately.

"Oh, look at those concrete trees!" I pointed out to him tall, slightly-leaning columns that looked as though they were made of cement. They were topped by tassels of greenery.

"Those are Royal palms. There are several kinds down here—mostly coconut."

"Look at that dazzling white pavement; and all the houses are white."

"The pavement is made of ground coral and white sand, mixed with oil and rolled. Everything's sand down here," he answered. Then I envisioned a beautiful flying field of rolled sand.

"I smell blossoms."





Victor Carlstrom was a much-loved pilot who set a record in 1916 flying a Curtiss Pusher 967 miles from Chicago to New York in 8 hours, 28 minutes and 30 seconds. Unfortunately, he was killed in a crash shortly before I arrived at Newport News.

“Yeah, probably orange. Come on, let’s eat. We’ll soon get into Miami.”

When we arrived at Miami, we were met by a Curtiss car which took us directly to the field. It was in the Coconut Grove area about five miles out. There I met Depew, an instructor; renewed acquaintance with Bennett and one other instructor whose name I can’t remember. The field was an empty stretch of ankle-deep sand with grapefruit groves on both sides. Adjoining the field, in a small, mostly screen, cottage, lived a young couple and their little girl. They were willing to take me in as a roomer.

We could fly only in the very early morning or late evening. The sandy field held the heat, and the heat waves continually interfered with our landings. In Virginia Mr. Batts, my instructor, cut the engine at various altitudes so that the student had to maneuver the plane into a satisfac-



tory landing position. Then we were to hold the plane off to as slow a landing as possible without losing flying speed—all this with a “dead stick,” meaning no power. Here we found that just as the wheels were ready to touch down, up would come one of those heat waves and the result was a bouncy landing. I had to learn to fly all over again—learn to make fast landings, sometimes with added power.

Since flying was restricted to morning and evening hours, we had lots of time for fun and sightseeing.

The boys here were from wealthy families. One of them, Wellman Waite, had a Hudson. One day he took a group of us out to William Jennings Bryan’s estate. Jack Pugh had a cabin cruiser. He was shy and reserved. He approached me one morning after we had finished flying and said, “I’m taking a few of the fellows up the canal. Would you care to accompany us, Miss Snook?”

I answered in a prim, demure voice that matched his, “Thank you. I shall be glad to.”

We hadn’t been gone very long before Jack lost some of his reserve and became one of our noisy little group. “Let’s stop at Alexander’s alligator farm,” said Carpenter.

“Not now. On the way back. They feed at four.”

“Oh, there’s a loose one,” yelled Waldin. “How do you suppose it got out?” I saw the long, slimy looking reptile glide down the muddy bank and disappear into the water.

“Silly—of course there are loose ones—they’re native. We’ll probably see others, although they do scoot out of sight when they hear a boat. They have been hunted so long, they’re fearful of man,” Carpenter explained.

He was a Floridian with light, sun-bleached hair, a characteristic of the natives of that tropical state. That he was an outdoorsman was apparent by his robust body and well developed muscles.

“We may see the monkeys,” Jack told me. “Unlike the alligators, they’re quite tame and come to the water’s edge whenever they hear a boat.” He told me to get a sack of dry bread that he had stashed under the bow seat and be ready to toss pieces to them. Several did come out of the thick





In 1918, due to the strict United States security measures imposed on the Newport News area, the Curtiss School was moved to Coconut Grove, Florida, about five miles from Miami. It was a happy reunion as we greeted each other and posed for our first group picture at the new location. I'm number nine in the back row.

tropical growth and we fed them as we went by.

"Now we'll cruise over the springs and you can see the big blue cats." I did see the cats—catfish—big ones up to three feet long. They were clustered around the bubbles coming from the springs in the river's bed.

Carpenter turned to Jack and took over the wheel. "Are we going to have a cookout in the palmettos?"

"I thought we would. I don't suppose Curly's (Jack was using my nickname by now) been on a cookout down here. Have you ever eaten skunk cabbage?" he asked me.

"No, but I'll try it. Does it grow around here?"

"It's really the heart of the palmetto palm. We'll cut down a small one, split it and eat the heart. It tastes like cabbage, and, with dressing, makes a good salad."

"Now if we just had an alligator tail to barbecue, we'd be



fixed," said Carpenter. "Can't do that any more—against the law—but we used to."

"We'll have to make do with hot dogs. They're in the ice chest," Jack told us.

As we sat around our barbecue lunch, we talked of our individual flying ambitions. The trip back was leisurely, but we were on the field in time for the evening lessons.

With all the free time in the middle of the day, every day was exciting, and every day I saw something new.

One of our students, Rod Wanamaker, had a Stutz Bearcat roadster with two lovely setters that rode the running boards. Rod was from the wealthy Philadelphia department store Wanamakers, but he was friendly and down-to-earth. He took pleasure in showing the northern students the beauties of Florida.

During one of our trips into Miami, I met Glenn Curtiss. We were entering the Royal Palm Hotel where Rod lived when Mr. and Mrs. Curtiss and their little son were coming down the steps.

"Oh, hello—hello, Mr. Curtiss," Rod stammered. I had never seen him so flustered. "Meet some of the fellows from the school. This is John Mackie, Fred Harris, Bill Cottingham, and, oh, yes, here is Miss Snook."

Mr. Curtiss shook hands with the boys, and when he came to me, he said, "I've had some good reports about you—keep it up." This was the same man who had not even been told that I had entered his school in Virginia—he did not approve of women fliers.

My first impression of Mr. Curtiss was that he was handsome, about forty, tall and slender, with medium dark hair and penetrating blue eyes, but with an almost pallid complexion. He wore a small, dapper mustache, the "trade-mark" of the fliers of that day.

Another distinguishing characteristic of the early day pilots was that there was a bit of cockiness in their makeup—they seemed to feel they were just a little better than anyone else.

One can hardly blame them—to be a flier was an envied



accomplishment. When a student received his Aviator's Certificate from the Fédération Aéronautique Internationale, the third and fourth pages of that little book carried this message, which was printed in six languages: "The civil, naval and military authorities, including the police, are respectfully requested to aid and assist the holder of this certificate."

Every group has its hero, and to us "would-be aviators", Mr. Curtiss was it. He seemed almost too frail to have accomplished so much—taught himself to fly, set flight records, built pushers, designed and built the JN4's which we were flying, and designing and building the wonderful OX-5 engine.

Meeting Glenn Curtiss was a memorable occasion, and I was happy that John Mackie had been with us.

Although John was one of our group, he preferred racing around the countryside on his beloved motorcycle—a large Harley Davidson—to riding in a mere car, even one as fancy as Rod's Bearcat.

Hesitant in letting the other boys use his bike, he did let me ride, but only around the field and hangar. The motorcycle was so heavy I could only keep it upright when it was in motion. When I wanted to stop, I'd circle the hangar and yell for help. A couple of the boys would come out, station themselves about three feet apart, and, as I cut the throttle and rolled between them, they would grab the handlebars and hold the bike so I could dismount. Sometimes when I yelled for them they'd tease me by pretending not to hear.

On our way back to the field from Miami, we drove over the causeway to Miami Beach. There were only a few concessions and bathhouses, but the sand was full of people in bathing suits sitting under beach umbrellas. I had never seen so many fat women bulging from scanty suits. In fact, I had never seen anyone in a bathing suit before. (I was from the middle states). All I could think of when I blushingly looked at those women was balloons—inflated gas bags.

The next day we were all at the field, waiting for the heat waves to diminish, when the Lathrop boys' father drove up.



He had come down from Minnesota with his daughter, Mary, to visit his sons Earle and Doug. Mr. Lathrop rented a car and, with his children and me, spent several days sight-seeing. Mr. Lathrop was a large, jovial man, slightly bald. He was a widower, and devoted to his children.

"How would you like to go to Key Largo today? The map shows the drive down the Avenue of Royal Palms and then on to Homestead," he asked us one morning.

"Oh, I thought we were going up the Tamiami Trail to see the Seminoles," said Doug.

"What's the difference? We can go up there tomorrow. I'd like to get in a little fishing," answered Earle.

"I'll swim while you fish," said Mary.

"No, you won't," said Earle. "There's a cement wall along there where we fish and no swimming is allowed."

"Why no swimming?" I asked.

"Because there are barracuda and they're dangerous. They have teeth as sharp as sharks and they hang around where there's a chance of getting chum that the anglers throw out."

"Let's go. We have to be back to get in a little flying time this evening," I reminded them.

"It's quite a trip. If you could forego a lesson this evening, we could stay late," said Mr. Lathrop, and turned to Doug. "How about it, son?"

"They'll have to miss the next day too if we get those boat reservations for Cuba," said Mary.

We managed the sight-seeing and our flying didn't suffer. There weren't enough cool daylight hours for every student to get up every day, and there were those who didn't care if they sometimes missed a lesson. They weren't the dedicated students I had known in the northern schools.

I was doing quite well. I could make faster landings, and I hoped, and was confident, that I would soon solo. Pat, my instructor, was satisfied, and the only thing left was for the hour to be set.

For the second time, the government ruled my destiny with this proclamation, "All civilian flying in the United



States prohibited for the duration of the war." Mr. Lathrop and Mary were still there. Mr. Lathrop offered to pay extra if Mr. Harbin would let me and his boys solo. Mr. Harbin, a kind, elderly man, was managing the field, but he couldn't go against a government order. There was nothing—just nothing—left for me to do.

"Buck up, Curly! Where's your spunk? All's not lost. Come on up to Mineola with us. You might be surprised. They might accept you," Pat tried to comfort me.

The boys were greatly concerned, even those who had been playing along. They realized that now they had no choice and might be drafted into the army against their wishes. Those with only a small amount of training went north to the government fields, hoping for anything in connection with aviation. Even our little red headed errand boy, Roy Russell, declared his intention of accompanying us.

I went north as far as Newport News and began negotiating, with the help of my friends, with the aviation "brass." Every letter was "no." I went up to New York to see what I could do there. Still the answer was "no." I came back south by coastal boat and stayed a little longer with the Olivers. Everything was closed at the school, but Percy Kirkham still stayed on to take care of the property.

"I know you've gotten a rotten deal all around. You deserved your license. I'll type a statement for you as to your qualifications if it will be of any help," he told me.

"I don't know what help it will be, but that would be some recognition," I answered.

After parting farewells with all my Newport News friends, I went home—back to Iowa—with nothing to show for the past year except a "To Whom it May Concern" scrap of paper.



## CHAPTER VI

I had been home only a short time when I received an official-looking letter from the British Air Ministry, England's counterpart of the United States' Department of Aviation. If interested in what they had to offer, I was to come to New York immediately.

Was I interested? I was alive again! Within a week I was in New York. It was July 1918.

There I learned that the British government, while fighting a war in Europe, was also fighting small wars of a different kind in Canada and the United States. They were depending on Canada and the U. S. for planes, plane parts, and engines, which couldn't be produced in war-torn England.

They had placed orders for OX-5 trainer plane engines and Sunbeam engine parts with the Willys Morrow plant in Elmira, New York. Deliveries were slow and uncertain. My orders were, "Will you please go up there and see what you can do?"

After locating a place to live at the YWCA, I reported to the Air Ministry office in Elmira. There I found an office set up in a building across the street from the second gate of the factory. There were two stenographers (idle most of the time) and a young man whose duty it was to make daily metallurgy tests of shipments of steel and a bronze metal alloy which came to the plant from Canada.

With an inventory of the British parts available, I went to the main office. I introduced myself and showed my identification. "Will you please give me a list of the machines



that you have allotted to British work?" With this in hand, I went down to the first floor to locate these machines. This floor, covering several acres, had rows and rows of lathes, six, eight or ten feet in length. Raw steel was fed in one end and a finished part came out the other. The ceiling was a mass of shafts and pulleys, with a power belt running down to each lathe. Each machine had an operator who continually checked his work with a micrometer.

My next stop was the engine test room. When I opened the door, the noise almost pushed me backward. It was so overpowering it didn't seem like noise. You could open your mouth to talk, but nothing came out. It gave me the oddest sensation—I felt I was in a vacuum.

Ten Curtiss OX-5s were bolted to stationary mounts and were running at maximum speed and would be kept at that speed for ten hours, a required test for all aeroplane engines. Some of the OX-5s were for the U. S. government and some for the British.

I visited that room almost every day to put an O.K. on the British engines, and sometimes on an occasional U. S. engine if one was ready to come off the test block and the U. S. inspector wasn't available.

The metallurgy tests were far behind schedule, and some had not even been started. A sample of every shipment of steel and bronze had to be tested for tensile strength. Pieces of steel were clamped into a machine and the metal stretched to the breaking point, with required poundage recorded. Pieces were put in a press and pressed flat. Again poundage was recorded. Tests were required on a sampling of some finished products. The man responsible for this job was gone so much of the time that I took to doing his work whenever his absence held up production. To overcome loss of our raw material, I had a small stamp made, and, with a hammer, I marked every steel extrusion in every shipment.

Each morning I went through the plant and checked every lathe allotted to British work. If I found an idle machine, I went to the main office to find out why. They were in the habit of taking an operator off the British work to replace an



absent operator on U. S. work. I made so much fuss they stopped doing that.

In the tool department, priority was given to U. S. work also, so I visited there daily. The British work was really more important because the Royal Air Force was holding back the Germans while the United States was trying to put together a working air force.

The factory was a revelation. In one department, parts were nickel plated by electrolysis. I hung a few small bearings by a wire in the solution over night to keep as souvenirs. The two-story steel furnaces fascinated me. Raw iron ore was dumped in the tops from rail gondolas. Molten steel came out below and was poured into forms to make ingots. The heat was unbearable as the furnace tenders shoveled coal into the open maws.

The YWCA boarding home where I lived was for girls who had come to the city for the first time for war work. It was a large, three-story mansion that had seen its best days, but it was located on a wide, beautiful, tree-lined street. All the old houses were set back, with gardens and shrubbery—overgrown but still attractive. Two maiden ladies presided. Miss Bedrosian, a plump, black-eyed, black curly-haired, olive complexioned beauty from Syria, I liked especially. There were about twenty girls. We had a cook, but all the girls had to keep their rooms clean. One wing, with a polished parquet floor, had been a ballroom. There was a piano, and we played, sang, and danced. We were allowed to entertain in either of the two parlors or in the ballroom.

Win Martin, from the Davenport school, was at the Morrow plant as an OX-5 engine expert for the United States government. He spent many evenings at the YWCA house. We built two aeroplane models from balsa wood.

Once I asked him, "How do you suppose the British government ever heard of me?"

He told me they couldn't help but hear about me with all the stir I had caused trying to get into the U. S. Air Force. I asked if he had anything to do with it, and he said he might



have—a little—because he knew what a hard time the British were having in getting their manufactured parts out.

"I just intimated," he said.

"Intimated what and to whom?"

"To some of the British brass that visited the plant. I told them I knew someone who could do it if anybody could, but that there'd have to be flying along with it."

"I'm flattered, but I do thank you. I have been so busy I have hardly thought of the flying I'm losing out on."

"By the way, how would you like to take a canoe trip next Sunday?" he asked.

"Fine, but where?"

"Down the Chemung River to Watkins Glen and then on to Corning. It's quite a trip—takes all day."

"All day to go and return?"

"No, just to go. We'll leave the canoe at Corning. They are sent back from there on a flat car. There are usually two or three dozen canoes out every weekend."

The next Sunday morning we embarked with about another dozen couples, in that many canoes. The girls sat on the bottoms amidships and the boys sat on the stern seats and paddled. The Chemung is a shallow, slow-moving stream of very clear water. It was so shallow in places that sometimes the boys had to get out and wade and push the canoes over the sandy bottom. The girls all carried parasols, and usually had a mandolin or a ukelele. Everybody tied up their canoes at Watkins Glen and went ashore. We visited the waterfalls and pools, danced, and ate. We left the Glen at dusk. The shore lights, the moonlight, and the strumming instruments in the many canoes made the warm, balmy summer evening something to remember.

About once a month I spent the weekend in New York City, where I would see one or more of the boys and catch up on their flying progress. They would take me around the city, to the theater, to Staten and Bedloe Islands, and to the parks. I always stayed at the Martha Washington Hotel on Twenty-fifth Street. It was a hotel exclusively for women, and was near the famed "Little Church Around the Corner."



On one of those trips, while I was telling my friend, Stoney, about the factory and how fast our British products were being produced, he said, "Don't you realize that you're working yourself out of a flying job? They'll never let you out of the factory and put you on a flying field. You're of more value to them where you are." I considered that remark on my way back to Elmira.

The return trip to Elmira was like another night in a hotel. I'd take a sleeper out of Grand Central about midnight Sunday and arrive in Elmira about 4:00 a.m. There the Pullman would be shunted to a siding so the passengers could sleep until 7:00 or 8:00 o'clock, or whenever they wished to get up. Lots of people used that facility, and were rested for the work week ahead.

The morning of November 11, 1918 ushered in a red letter day for the whole world. On that day the Armistice was signed and World War I was over. Elmira celebrated with noise, parades, sirens and street dances all that day and night. The LaFrance fire engine factory is located in Elmira, and their products tore up and down the streets with sirens shrieking.

It took me several weeks to wind up the British contracts and get my last report sent to "His Britannic Majesty." (I'm sure he never read any of them.)

The British Government gave me a certificate of appreciation, and I was free once more to again start my flying career in earnest.





# British War Mission

Inspection Department  
in the  
United States of America  
1914 - 1918

In commemoration and appreciation  
of valuable services rendered in the United States  
of America to the Government of His Britannic  
Majesty, in connection with the provision of  
Manitans to the British Forces in the  
Field during the Great War 4<sup>th</sup> August 1914  
15<sup>th</sup> November 1918

This Certificate is given to WILLIAM EDWARD GIBSON who  
acted as an Examiner-Reserve Pilot from July 8, 1915, to  
January 14, 1919, in the Cleveland District.

Signed J. MacKinnon  
for Inspector General  
Director of Inspection of Manutans

New York

After the United States Government issued an order banning all civilian flying, the Curtiss School was closed. I took a job as an expeditor for the British Air Ministry at a plant in Elmira, New York, which was producing aeroplane parts and engines for the Royal Air Force. Following the close of the war, the British War Mission gave me a certificate of appreciation, and I was free once more to continue my flying career.



## CHAPTER VII

I purchased a wrecked Canadian training plane and had it shipped to my parents' home in Ames, Iowa. They had moved there from Illinois when I enrolled at Iowa State. On my return from Elmira, I signed up for more courses at the college, and in my spare time rebuilt my "Canuck," the popular nickname for this British trainer.

The Canuck was a contemporary of the United States JN4 called the "Jenny." There were a few slight structural differences. The British plane had double ailerons, the rudder was more rounded, and the fuselage covering laced along the top longeron on one side. Both had stick controls and used Curtiss OX-5 power plants.

I had some help with my rebuilding. John Stone, who had worked at the Newport News school, was now employed at the Maytag Washer Company at Newton, Iowa. He came up to Ames and helped me get broken fittings remade and selected the proper wood for wing spars. My father, who was now a building contractor in Ames, had a carpenter shop in which the woodwork repairs could be made. Many Ames people were interested and offered their services.

We assembled the plane in the back yard of my parents' home on Wilson Avenue, a few blocks from downtown Ames. People came to see it and asked, "How will you get it out of this small yard? Can you fly straight up? Which is the front end?"

There were few people in the middle west who had ever seen a plane, most of the flying being limited to the east. On the Pacific coast John Joseph Montgomery had flown a glider



at Otay Mesa near San Diego in 1883. This was the first successful flight of a heavier-than-air craft. Montgomery was killed in a glider crash near San Jose in 1911.

By the spring of 1920 my ship was ready for the air. After we had removed the wings, we loaded them on a truck, and towed the fuselage behind, to a pasture adjoining the Iowa State College campus.

That was when I made my first solo. I was so concerned about the airworthiness of my rebuilt plane that I didn't think about myself. I knew I could fly. I could fly when I left Virginia in 1917, and I had learned more on that sandy air field in Florida. Piloting a plane is like driving a car—once you learn, you never forget. You might become a little rusty, but the main principles are there.

I had stopped writing in my diary, so I have to rely on my memory as to my emotions. I was pleased and happy—that I know—and happier still with the plane's performance. That was the first time I had flown a "Canuck."

That summer I carried passengers and barnstormed through the middle states. I charged \$15 for a passenger flight, and tried to give each one fifteen minutes in the air. If there were many waiting, I could cut the time in half without complaints. All were happy to return to the ground safely and be able to say they had been up in an aeroplane. There were always remarks like, "You couldn't get me into one of those things for love or money," or "I'll fly if I can keep one foot on the ground."

Once in a while a loud, cocky passenger would say, "Let 'er go. Give 'er the works. I can take it." Then I'd give him a few steep dives and a few sharp pullups, but I never stunted with passengers (loops or tailspins). Usually when we landed, the noisy passenger was somewhat subdued—dips and partial stalls do upset stomachs.

One is not conscious of the speed of flight when in the air. There is nothing to compare it with—no telephone poles or objects to pass. My mother was a willing passenger, but my father would not go up. When I had my mother up, she tried to talk to me. In those oldtime planes with open cockpits,





After my service with the British Government, I purchased a wrecked Canadian training plane ("Canuck," a contemporary of the United States JN4 "Jenny") and had it shipped to my parents' home in Ames, Iowa. After enrolling for additional courses at Iowa State College, I spent my spare time rebuilding the plane in our back yard on Wilson Avenue, a few blocks from downtown.

conversation was impossible above the roar of the motor and the whirl of the propeller. After we landed, Mama said, "You needn't have gone so slowly for me, but I did enjoy the ride more than I thought I ever could." I didn't tell her how fast she was moving.

My sister, Vivian, was twelve years old and was clamoring for a ride. "You've just got to take me. The kids at school ask every day if I've been up yet."

Finally, Mama consented. Vivian and I walked out to the field one evening. During the flight I circled over our home. That was the only flight I can remember that caused me any





By the Spring of 1920 my Canuck was ready for the air. I removed the wings, loaded them on a truck, hooked the fuselage behind, and took the plane to a pasture which adjoined the Iowa State College campus. After assembling it, I made my first solo flight.

AVIATRIX FLYING  
OVER IOWA STATE  
WILL DROP BOMBS

Passenger Flying

As a part of your visit to Ames, Ia. enjoy a short trip "in the clouds." The field is conveniently located on the south side of the road between Ames and the campus.

Bring your friends and let them really

See The College

An efficient driver and reasonable rates.

Miss Neta Snook

Aviatrix

Phone 1102

The summer of 1920, I carried passengers and barnstormed throughout the Middle West. I charged fifteen dollars for a passenger flight, and tried to give each one fifteen minutes in the air. If there were many waiting, I could cut that time in half without complaints.



apprehension. I realized the awesome responsibility my mother had placed upon me. Afterwards I asked her about her feelings at that time. She said, "I just sat on my porch and said, 'There go my two girls. God, please take care of them'."

Before the decade was over, Vivian herself had learned to fly.

Another memorable flight was when I bombed the college. At the close of each school year, the college yearbook came out with a celebration. The Iowa State yearbook is called "The Bomb." They asked me to launch "The Bomb," so I made small white parachutes and threw out several books while flying low over the main campus.

That summer I made contracts with fair officials of small towns to fly at their celebrations. They were anxious to sign such contracts because an aeroplane drew crowds from miles around. At that time there were still only a few people who had ever seen one. I also made good money carrying passengers. My first fair contract was in my home town of Mount Carroll, Illinois. I received \$1000 for two flights daily for three days. This time I didn't have to wait in almost unbearable anticipation to get into the air as I had had to do as a child watching the balloon ascensions.

There were no airports, yet the level terrain which characterized most of the midwest provided one big landing field. All roads ran east-west and north-south at about mile intervals. From a few thousand feet, the whole resembled a large checkerboard. Navigation between towns was by means of railroad tracks or rivers. If I became lost, which I did several times (Humboldt, Iowa and Polo, Illinois), I just landed in a farmer's field. When the farmer, usually accompanied by his family, came out, I'd say, "I'm Neta Snook and I'm afraid I'm lost. Can you please tell me the name of the nearest town?" They always greeted me warmly and invited me to come in and eat or rest. By that time their neighbors had arrived. If I had time, I'd stay and sometimes carry a few passengers. I always offered to take the farmer or some member of his family for a free ride. During much of the year





Mama, Vivian and I in the pasture landing field in Ames. After Mama's first ride, she said, "You needn't have gone so slow for me," but her comment on watching Vivian and me circling over our house on Wilson Avenue was, "There go my two girls. God, please take care of them."

the pastures, and harvested hay fields, made acceptable landing fields, and it was comfortable and a sheer delight to fly over country where available forced landing spots were everywhere.

At the fairgrounds, the inside of the race tracks were sometimes acceptable as air strips; if not, there were the adjoining fields. The farmers co-operated, and there were those who were always ready and willing to help refuel and tie the plane down at night. It was necessary to tie down in anticipation of possible wind and thunder storms. Such storms could put a plane on its back or even demolish it.



The tie-down consisted of a rope across each lower wing and secured to stakes driven into the ground. Another rope and stakes at the rear of the fuselage completed the tie-down.

While securing the plane one night, a little boy came up. "My father says you're a barnstormer. Why do they call you a barnstormer?"

"Really, I don't know. Maybe it's because if I have to make a forced landing, I try to land close to a barn because there I'll find people. An aeroplane does come down pretty fast, and some storms come pretty fast, too," I answered.

"Maybe it's because when you landed here, our stock ran for the barn. They always hurry to the barn when there's a big storm," he said.

"I'll just bet that's it. 'Bye now. You'll keep an eye on the plane, won't you? Don't let your cows lick off the paint."

During all this time I had never had the time or the opportunity to fly for my license and receive official recognition as a qualified pilot in the International Federation. I had always been thwarted by unforeseen events—crashes and government proclamations—on three separate occasions. I wanted, and knew I was entitled to, that coveted little memo.

I contacted the Aero Club of America and they in turn contacted the *Fédération Aéronautique Internationale*. The result—they appointed three prominent business men of Ames, Iowa to observe my test and fill out the necessary papers. The tests were simple—figure eights around mythical pylons in both directions and a dead stick landing within a specified circle. Finally it came—that little blue book with my photo and license number. It was three years late, but "better late than never."

That, I think, was the climax of my aviation career. It was like a final graduation certificate. Now I was a recognized pilot before all the world.

I had a United States license issued the year before, but somehow it hadn't meant much to me. In 1918 the government started a program of aviation regulation. Forms were sent to all known pilots and owners of planes. I filled





My first "publicity portrait" was taken in a studio in Ames. I used this picture on posters and in newspaper articles announcing my appearances at fairs and celebrations throughout the corn belt. My first contract was in Mount Carroll, Illinois, where I was born. I was paid \$1,000 for two flights daily for three days, a big fee for barnstorming in 1920.



FÉDÉRATION AÉRONAUTIQUE  
INTERNATIONALE  
AERO CLUB OF AMERICA

No. 4831.

The above-named Club, recognized by the Fédération Aéronautique Internationale, as the governing authority for the United States of America, certifies that

*Mary Neta Snook*  
born *14* day of *February*, 1896  
has fulfilled all the conditions required by the Fédération Aéronautique Internationale, for an aviator pilot, and is brevetted as such.

Dated *October 13* *th* 19*19*  
*Robert T. ...*  
President.  
*Arthur ...*  
Secretary.



I had my license for flying civilian aircraft, but had never received recognition as a qualified pilot in the International Federation. Finally it came—that little blue book with my photo and license number. Now I was a recognized pilot before all the world!

out the forms sent me and received a document in return. It was signed by the Joint Army and Navy Board on Aeronautic Cognizance, dated July 18, 1919. It stated that this license was issued to (Miss) Neta Snook, Ames, Iowa, to conduct flying in civilian aircraft in accordance with the following terms and conditions: "Curtiss aircraft, license 825, operated by (Miss) Neta Snook; passengers to be carried—*none*. Territory—U.S.A.; purpose—pleasure and training. Valid until revoked." In italics: "This license is not evidence of the pilot's qualifications nor reliability of aircraft used." Just what was the purpose of this license? I ignored it, as did my pilot friends. I erased the "n" in front of the "none" making it



"one" and carried passengers until I sold my plane in August of 1922, three years later.

With the approach of winter with its ice and snow that made flying impossible in Iowa, I decided to take my plane to California. Mr. Stone, still employed by Maytag, said if I would fly it down to Newton, he would disassemble it, load it in a boxcar, and ship it to me in California.









Number 825

## LICENSE FOR FLYING CIVILIAN AIRCRAFT.

By virtue of authority conferred by Proclamation of the President of the United States of America (No. 1432) February 28, 1918, regulating the flying of civilian aircraft, the Joint Army and Navy Board on Aeronautic Cognizance hereby issues this license to—

Name (Miss) Neta Snook

Address Ames, Iowa

to conduct flying in civilian aircraft in accordance with the following terms and conditions:

Description of aircraft Curtiss

Identifying mark of aircraft (to be as described on reverse side of this license) 825

To be operated by (Miss) Neta Snook

Passengers to be carried one

Territory in which to be operated (subject to U. S. and State laws) U.S.A.

Purpose for which flights are to be made Pleasure and training

This license is valid from date until revoked.

*(This license is not valid if pilot's qualifications are the reliability of aircraft used.)*

Issued by direction of the Joint Army and Navy Board on Aeronautic Cognizance this 18th day of July, 1919.

THE JOINT ARMY AND NAVY BOARD ON AERONAUTIC COGNIZANCE,  
Building D, Sixth and B Streets, Washington, D. C.

*W. H. Clayton*  
Captain, Air Service,  
Secretary

In 1918 the government issued aviation regulations. My license was restricted to pleasure and training flights, and not for carrying passengers. I ignored it, as did my pilot friends, and erased the first "n" in "none" and carried passengers until I sold my plane.



## CHAPTER VIII

The only commercial air field in Los Angeles was located west of Wilshire Boulevard and was operated by Emery Rogers. He had two "Jennys" and a Curtiss Oriole, a pleasure model that Curtiss started to manufacture after his JN4 government contracts were cancelled at the end of World War I. The Oriole seated three, side by side. I rode in it but did not pilot it. Emery, a personable young man and a good pilot, was the Los Angeles distributor and was trying to sell them.

Emery and his crew unloaded my Canuck and hauled it to his field, where we assembled it. He told me about Mr. Kinner.

"There's a fellow over on the other side of town starting a field and he's building a small plane. They tell me he's looking for a test pilot. Why don't you look him up?"

"That I will. I'm not here for pleasure. I have to work."

"I'll tell you what we'll do; let's fly over there tomorrow. I've been wanting to see his layout. O.K.? We'll take the Oriole. I want to log some time in her."

The next day we flew over to Kinner Field. It was located on the west side of Long Beach Boulevard and Tweedy Road, below Huntington Park, and surrounded by truck gardens. It was a fifty-acre barren, weed-grown piece of ground with green growth on each side. We spotted the small hangar with the wind sock on top, and landed on a bumpy, unused runway. There were no air fields with paved runways at that time.

A tall, slightly stooped, hollow chested man whom I judged to be in his forties, approached. He had friendly black eyes and black hair that needed cutting. He carried a paint brush in his hand.





When Iowa's ice and snow made flying impossible, I shipped my plane to California. I located with Winfield "Bert" Kinner at his field south of Los Angeles.





Bert Kinner and the first plane he built, a small biplane with a 17-foot wingspan. Called the "Kinner Airster," I test flew it and Amelia bought it in 1921.

"Hello," he greeted us. "Welcome to Kinner Field. I'm Bert Kinner."

"I'm Emery Rogers—Rogers Field— and this is Miss Snook. She's a pilot and has a plane on my field."

"Yes, I've been out to your field, but haven't had the pleasure of meeting you, Mr. Rogers. How do you do, Miss Snook. So you have a plane. What kind?"

"It's a rebuilt Canuck and I'm looking for hangar space and a job."

"Come in and see my project."

Mr. Kinner took us into his hangar where he was in the process of building a small biplane with a seventeen-foot wingspan. He said, "I call it 'The Kinner Airster'." He had drawn the design himself, and he envisioned the small plane as one that would be owned by every family in the future.





At Kinner Field, besides test flying Bert's Airster, I did aerial advertising, carried passengers and taught students. Cam, my Great Dane, and I watch as my Canuck is prepared for advertising the Gunther Company's newly developed humidifier for car carburetors.

We discussed certain aspects of the construction as they compared to Canuck construction and that of the first old Davenport plane. Before we left, Mr. Kinner offered me all commercial rights to his field, and in return I agreed to test fly the planes he built.

The next morning I flew my Canuck over to Kinner Field and started my commercial business. I did aerial advertising, carried passengers, and taught students. My first aerial advertising job was to fly over Los Angeles with "Wilshire Gasoline" painted in big letters on the bottom of the lower wings. I was paid \$100.

Another advertising job was for the Gunther Humidifier Company. The humidifier was a device attached to a car



motor whereby additional moisture was drawn into the carburetor mixture, and was supposed to save on gas consumption and make the motor run more smoothly. They felt if they could advertise that it was used on a plane engine, their sales would increase.

Weather permitting, I carried passengers daily, especially on weekends. Some came for the express purpose of taking a passenger flight, while others stopped as they were driving on Long Beach Boulevard to just look. There were always young men hanging around the field hoping for a chance to get into the air. Some of these had been World War I pilots who found it hard to take up other occupations. There were few pilot jobs available. Occasionally a wealthy man would buy a plane and hire a pilot. An air mail service from coast to coast was in limited operation, but few pilots were needed.

My students were mostly young men who worked all week at their jobs and on weekends spent their earnings on flying lessons. None was regular. As I look back over some skimpy records, I find these names: C. H. Haysin, F. J. Schaefer, B. Black and J. Hamond. Other entries just read, "student." (If any of these men read this book, it would be nice to hear from them.)

One day a flashily dressed young girl drove on to the field in a new Cadillac. She wanted to learn to fly immediately. A few lessons soon dampened her enthusiasm, as she found that a plane was no plaything and that she would have to work diligently to master all phases of flying. She probably purchased a plane and hired a pilot. I never saw her again.

We always welcomed visiting planes. Planes from government-operated March Field, located near the mountains on the other side of Baldwin Park, began dropping in regularly. When they came, the boys would immediately start going over my old Canuck, realigning it, tuning the engine, and sometimes adjusting the shock absorbers. They complained, "I don't see how such a piece of junk can stay together. You know you're taking your life in your hands every time you take it up." In reality, the engine ran beautifully; and, thanks



to them, all other parts were kept tip-top. I suspect they enjoyed their griping.

The plane didn't require a great deal of maintenance. Occasionally the cloth on a wing would get snagged, or a passenger, while boarding, might make a misstep that would cause a rip in the wing covering. These were easily repaired by doping a new piece of cloth over the tear. A few extra coats of dope made it as good as new. The wire cables, although small in diameter, had many times the tensile strength needed for their purpose. They were galvanized, so never rusted. A half turn on a turnbuckle now and then was about all the adjustment needed. I never saw a broken cable on a wrecked plane. The weakest part always gave first, and that was usually a wooden part.

The shock absorber system, part of the landing gear assembly, was rather unique. The landing gear struts were streamlined pieces of wood about six inches in diameter; one was about three feet long and the other about five. These two struts were fashioned into a "V" with the apex down. The tops of the "V" were fastened to the lower longeron of the fuselage, one just under the engine and the other under the back cockpit. There were two of these "V's," one on each side of the fuselage, and they made the plane look like a bird standing on two spraddled legs with wings outstretched. The wheels were attached to a steel axle slightly longer than the distance between the two spread "V's". Before the axle, with its wheels, was attached to the plane, it resembled a large dumbbell. This axle assembly was lashed to the apexes of the "V's" with two lengths of rubber, each about twenty feet long and made up of many strands of elastic, similar to the cable construction.

It took two strong men to stretch and wrap each lashing. When the plane rested on the wheels, it was hanging on a flexible cushion of elastic. Care had to be taken to keep the tension equal, each lashing needing an equal number of wraps. If one was looser than the other, one wing would ride lower on the ground and could result in a ground loop or



even a real crash on landing. These shock absorbers allowed the plane to withstand many landings, especially hard student landings. Periodically, the rubbers had to be stretched and rewrapped, but I never saw one break.

After I was settled in my flying business, I started to look for a permanent place to live. I found a small two bedroom cottage on a large lot on Belgrade Avenue in Huntington Park, about two miles from Kinner Field. An electric street car ran from Los Angeles through Vernon, Huntington Park, and about a mile down Long Beach Boulevard to one of the small, unincorporated subdivisions of either Southgate or Maywood. I would leave the car at the end of the line and walk to the field. At least that is what I always started to do, but I never walked the entire distance. A passing car would always stop and invite me to ride. I wore my flying togs, and most people knew about the flying field and some knew of me. It wasn't against the law to give hikers rides in those days, and I never rode with anyone who gave me the slightest trouble. All were kind, and interested in aviation.

Then, too, I always had a companion—my Great Dane, Cam. I had purchased Cam as a pup from a breeder in San Francisco two years before. She was with me almost constantly. Since puppyhood she had ridden in the plane, in the other cockpit, but always with someone holding her. I couldn't take the chance that she might interfere with the control cables. She was very good on the field, and whenever an engine started, would immediately go to the hangar. It was not that she was afraid of the planes or the motor noise, but she seemed to sense the danger of the whirling propellers. Everybody loved her and made over her and fed her. In fact, she got so fat that she became weak in the hind legs and the veterinarian advised less food and more calcium.

While she was a registered Great Dane, she did not look like one. I never could bring myself to have her lovely soft ears cropped so as to give her the proud, stately look of the breed. I was always surprised when, in rainy weather, doors of beautiful clean limousines would be opened to invite us to ride, but I always kept her off the seats. I don't know if



it was the practice of street car conductors to allow dogs on the cars, especially those of her size, but we were never refused.

The old gentleman from whom I purchased my cottage was a Spanish War veteran who had built it himself. He told my nearest neighbor, Mrs. Morino, "I wish I hadn't sold my house to that young lady. I didn't know she was an aviator. I hope she gets it paid for before she kills herself." All the money I made went right into that house, and before the year was up I had a clear title.

Since I spent very little time at home, I decided to rent my house and reserve one bedroom for myself. An ad in the Los Angeles paper brought a pleasant prospective tenant—Mrs. Francis. She was a slight, frail little woman with large blue eyes that were red rimmed and swollen. "Had she been crying?" I wondered. The house just suited her, she said.

"Do you have children?" I asked.

"Yes, a boy thirteen and a baby girl, two." That would leave only one bedroom for the four of them, but I didn't take that into consideration. I was a new, rather inexperienced, naive landlady.

The next evening when I came home, child faces peered from every window. I found there were five children instead of two. When I spoke to her about her deception, she said, "I never could find a place where they would take five children. I didn't lie to you. I only told you of Elwyn and Flossy. I just didn't mention the three between."

Her husband was a bus driver and was interested in another woman. He wouldn't stay at home, she said, because the noisy children annoyed him. The courts had awarded her some money, but he did not fulfill his obligations. They were almost destitute.

I spoke about my tenants at the field and some of the boys harvested missed vegetables from the adjoining truck gardens after the crops had been picked. One of the truck drivers who refueled at Kinner's gas pump and who hauled milk from the dairy farmers to the creamery, gave me gallon jugs of milk for the children.



The Francis family lived in my house for several months, although I kept urging Mrs. Francis to find another place. Finally she told me the county had found a house and that her husband might come home if there weren't so many children.

"Will you keep Ivan for me for a few weeks until we get settled?" she asked.

Ivan was the second boy, about ten years old, small for his age, but cute and intelligent. I agreed to keep him until she could make other arrangements. He went to the field with me almost every day. The boys took up a collection and bought him some new clothes.

Mrs. Francis left numerous boxes of clothes, pots and pans in my garage—"Just until I get settled," she said.

My neighbors told me that Ivan, sometimes accompanied by his brother, Elwyn, spent time in my garage. When I questioned him, Ivan said, "We were just getting things out of the boxes that Mama wants."

My neighbor, Mrs. Morino, was waiting for me one evening when I returned from the field. "You'll just have to get rid of Ivan. I caught those two boys smoking in your garage. If all that trash gets on fire, our houses will burn too."

I had been missing change and a few little things, but I hated to accuse Ivan. Now it seemed expedient that I give up my "child care project." That evening I took Ivan back to his family and told them they would have to remove all their belongings from my garage by the end of the week.

Shortly after, I rented the house to an elderly lady, Mrs. Adams, and still kept the one bedroom for myself. We both used the kitchen. She was a pleasant, motherly woman, a partial cripple, and she was very nice to my friends. Once she mentioned to one of the boys that her bedroom was cold. He worked as a tinsmith and took flying lessons on the weekends. One day I came home to find that he had installed a secondhand gas floor furnace in her bedroom floor.





Amelia and my Great Dane, Cam. The two met at Kinner Field the day Amelia and her father came to discuss flying lessons.

## CHAPTER IX

It was shortly after Mrs. Adams came to live with me that I met Amelia. I'll never forget the day she and her father came to the field. I liked her on sight. I liked the way she stated her objective. "I want to fly. Will you teach me?" She saw that I was busy and said she would come back the next day. When she came, as she had promised, the next afternoon, I invited her to sit on a bench with me inside the hangar. When we sat down, my Great Dane came up and rubbed against us.

"Oh, you beautiful pet—what's your name?" Amelia gently stroked the dog behind the ears.

"I call her Cam. Her real name is Camber—that's an aerodynamic term."

"Yes, I know. It has to do with the lift, doesn't it?"



"Why, yes. You're the first prospective student I recall who exhibited any prior aviation knowledge."

Amelia smiled. "During the war I was a Red Cross nurse in Toronto. Some of the patients were Royal Flying Corps fliers. I picked up some aviation jargon from their conversations. It was then that I thought I would like to fly. I'm really a midwesterner. I was born in Kansas."

"Oh, you were! I was born in Illinois. How do you happen to be in California?"

She told me her father was attorney for the Southern Pacific Railroad and that her parents had recently moved to southern California.

"I've been in New York, but I'll stay here with my parents for a while until I decide what I want to do. I don't have any friends here."

I nodded. "I've been in southern California since November of last year. The only friends I have are those who come to the field. I don't know one single girl my own age here."

She looked at me. "I think we must be about the same age. I was born in 1897."

"You're a little younger than I. I was born in 1896."

She told me she had attended various schools, the last year at Columbia, and only took courses that interested her. She spoke of once taking physics and chemistry with a pre-med goal. "I failed there. I could never measure up," she said.

"I've had two years at Iowa State College at Ames," I told her. "I had to take Home Ec—that was required of the girls—but I did get in a few engineering courses on the side."

"Ames!" she exclaimed. "I spent one year of high school in Des Moines. That's only about thirty miles from Ames. We do have many common interests. I would like to hear all about how you got into flying, but I guess we'd better discuss my prospects now. I don't want to take up too much of your time. How much does flying instruction cost?"

"I charge \$1.00 per minute in the air, the same as it cost me. All my students so far have paid for each lesson as they learn."



"Then I'll pay that way, too," she interrupted. "Would you be willing to take Liberty bonds in payment?"

"I don't know why not. They're as good as money. When would you like to start?"

"Tomorrow, if you can fit me into your schedule."

"I have students for the early morning, but you could come out any time and we could go over some of the ground rules. You can learn to taxi. Do you know what that means?"

"Yes, that means moving the plane around on the ground. I learned that from the R.F.C. boys. Someone told me that to taxi a plane on the ground is harder than to fly."

"That's partly right. I have to go now. See you tomorrow."

The next day we began ground instruction. I explained to her how the rudder was used in taxiing and how it was hooked up differently than the sleds and coasters we had been used to.

"With a child's wagon, you pushed one foot and went in the opposite direction. A plane rudder is hooked up just the opposite. You push the rudder bar in the direction you want to turn. It takes a little time to get used to it. In taxiing, you have to 'anticipate.' You can't wait until the plane begins to turn and then push opposite rudder. That way you'd be zigzagging all over the field."

"I think I understand. I'll have to learn to take the plane down the field in a straight line before I can try a takeoff."

"That's right. Do you want to try it now?"

We spent about thirty minutes taxiing up and down the field, and by that time she could steer a pretty straight course.

"That's enough for today. Tomorrow we'll try some figure eights over the field. You've met Mr. Kinner, haven't you? I think I saw you and your father talking to him the first day."

"Yes, we talked briefly. Daddy says he is visionary and not too practical, but intelligent."

I agreed. "He's in the hangar working on a wing—putting in the final brace cables prior to covering it. You can learn





When Amelia came to Kinner Field for her first training flight with me on January 3, 1921, she was wearing her riding "breeks." Her pants were dark brown, tight fitting and reinforced with leather from the knee down, and she wore a neat, tight-fitting jacket that matched the pants. It was a beautifully tailored outfit.

something about plane construction by watching him. 'Bye, see you tomorrow, same time.'

"Oh, will my breeks do as flying clothes? I wore them when I went horseback riding in Central Park."

"They'll do fine, but you better bring a sweater to wear under your jacket when we get into the air."

The next day when Amelia came, she was wearing her "breeks." They were dark brown pants, tight fitting from the knee down. The inside of each leg contained a patch of reinforced leather as a preventive from saddle chafing. Laced boots reached to mid calf. She wore a neat, tight-fitting jacket to match. It was a beautifully tailored outfit. She had a library book on aerodynamics. I soon became accustomed



to seeing her with a book. She always carried one.

The aerodynamic books we studied together. Sometimes Mr. Kinner joined us in our discussions. We argued about top speed increase per thousand feet of altitude; the drag caused by flat wings versus cambered wings; how ceilings were determined. There was so much to learn.

Amelia's reading interests were varied. Sometimes she would be reading a book of poems by Rossetti, or Omar Khayyam's Rubaiyat, Fitzgerald's translation, or something by Carl Sandburg.

One day she came with a thick brown book. It was the history of the Mohammedan religion and she tried to get me to read it. I refused. I believed implicitly in the Bible with its account of the creation.

"You can't show me any place in the Bible where Mohammed is mentioned," I told her.

"I didn't say I believed the Arabic doctrines. I'm just interested in what people in other parts of the world believe." She continued in a soothing tone, "Now don't get 'all het up', as our cook used to say. Let's change the subject. How about photography? I've been offered a part time job in a studio."

"That's fine, and practical, too. You can finish your own pictures free." I told her about my job in a photographic studio in Davenport at my first flying school.

"I made almost all my living expenses printing pictures from negatives the photographer had developed the previous day. He picked up the rolls of exposed film from several drug stores where people left them to be finished. He permitted me to make the prints whenever I wished, as long as I kept up with the work."

"Maybe I can make similar arrangements," Amelia answered.

"I used to go up to the studio in the evenings. Usually a couple of the boys went with me, and, with their help, the snaps were printed, trimmed and put into the envelopes quickly. That way I had free time most of the day and could



be at the field whenever there was flying."

"Didn't your boss object to your extra help?" Amelia asked.

"No. Sometimes he was there working late. He was a bachelor and kept odd hours, and occasionally slept at the studio on a couch in the waiting room. He allowed us to make enlargements in the darkroom and put our exposed film through the developer."

Amelia's job in the photographic studio, plus other employment at the telephone company, helped finance her flight lessons. She had her first instruction flight on January 3, 1921. My records show that she logged four hours of air time during the months of January and February. There were lots of days when it was either too foggy or too windy for student flying. Sometimes she had to work at the studio on good flying days, and she also helped her father in his office one day a week. Once in an emergency when Mr. Earhart had to be in court, I went down and kept the office open, as Amelia had to be at the studio.

If any of the boys who usually hung around the field came in with an armload of fresh corn filched from the nearby truck gardens, we had a feast. There was a small, flat topped wood burning stove in the little room attached to the hangar, where the watchman slept. We had a few cooking utensils, knives and forks. When we cooked, Amelia always washed the dishes *before* we ate. When we bought ice cream cones, she never ate the part the handler had touched. This germ awareness dated from her pre-med days. However, she never minded if her hands got dirty helping with plane maintenance.

Occasionally the boys would bring in some new potatoes. Having no oven, we boiled them and ate them with butter. Amelia liked her potatoes hard and took hers out about five minutes before the others were done. She never wanted to dally long at what she called "frivolous doings," such as eating and joking, if the air conditions were right for flying.

Amelia soon became familiar with the controls. She could





A serious Amelia looks out of the cockpit of my Canuck. The picture was taken at Kinner Field shortly after she became my student.

warm up the engine and I didn't have to get in until we were ready to go. She would sit erect in the cockpit and call out, "Off." The mechanic would pull the prop a couple of times to draw gas into the cylinders. When he stepped back, she would hold the stick back tightly against her chest so the "flippers" could act as partial brakes, turn on the switch, and call, "Contact." Then the mechanic stepped forward and put both hands head high on the propeller blade. He gave it one hard pull downward and stepped back quickly so as to avoid being struck by the whirling blades. Hopefully the engine would start with the first pull. The warmup period lasted until, at high acceleration, the engine ran smoothly. Then the



mechanic would pull the wooden chocks that blocked the wheels and we were ready to roll. After an exhausting stint in the air and we were back on the ground, we would talk of less taxing things—our social lives—boys.

Amelia preferred older men. She laughed and joked with some of the brash young fellows, but always had a pleasant way of turning them down. Two of the boys, Bill and Jimmy, were frequent visitors. Bill had a trucking business. He sent out trucks daily in four directions from Los Angeles to pick up milk from the dairy farms. Other trucks hauled freight in the city, and still others hauled garden produce, some of which was grown on both sides of Kinner Field. One night Bill had to make an extra run to pick up a load of cauliflower near our field. The ground was wet and the truck got stuck. He came over to the flying field to phone for a tow. Our watchman helped him to dry off. They became friends. After that, Bill or his drivers often left us fresh produce or jugs of milk that was mostly cream. We would shake some in a two-quart jar until it turned into butter.

Jimmy had something to do with the telephone company and he was also interested in some mining claims in the Tehachapi Mountains. He had a Studebaker touring car, and invited Amelia, Bill and me to go up to these claims with him. It was about two hundred miles out of Los Angeles. We were almost there when it began to rain. It rained and it poured. We put on the side curtains, but still we got wet. The mountain roads were narrow and slippery, and it was getting dark.

Jimmy said, "I think we just better try to get on to a little settlement that I know of where we can rent a cabin for the night."

"Oh, we can't stay all night. My parents won't allow it," Amelia spoke up.

"I don't see how we can help ourselves," said Bill. "Think of that slippery grapevine we'll have to drive in the dark."

"We would have had to drive it in the dark, anyway," I reminded him.



"I know. But it's different driving at night in good weather. There's no sign of a letup. We won't bite you—you girls can have one cabin and we'll get another."

We sat there in the rain and argued for some time. In the end, we started back the long two hundred miles, with the rain coming down faster and faster. It was daylight before we reached the outskirts of Los Angeles.

I didn't have to fly the next day, and Amelia's parents knew she was staying with me. As we were preparing for bed, Amelia commented, "You see why I don't care for these thoughtless, irresponsible young boys. Mature men wouldn't have put us through such an experience."

I didn't say anything but I thought, "Amelia, you're too old for your age. They didn't expect it to rain. I'll take the lively, 'irresponsible' boys any day in preference to your staid old 'moneybags'."

Amelia had a rather unusual elderly friend. I called him her library beau. She visited the city library often—several evenings a week. Regularly she checked out books for her father and mother as well as for herself. She also got books for me.

The first time I saw this friend was one evening while I was working in my garden cultivating my "Greeves" hedge. This was a row of poinsettias that extended from my "Anderson" acacia along the western lot line to the front fence. I had a habit of naming my plants after the people who gave them to me. This hedge was a present from an old friend, George Greeves.

George, a student in my first aviation school in Davenport, had contacted me when he heard I was operating Kinner Airport, and invited me to his home for dinner. He lived with his mother on Vine Street only a few blocks off Hollywood Boulevard. (Now it doesn't seem possible that there were once single family houses on those streets.) Mrs. Greeves had tall blooming poinsettias along her porch, and how I admired them. The only ones I had ever seen were in pots at Christmas time and were less than a foot in height. I had



never ceased to marvel at the wonderful profusion of flowers in California. In my letters home I boasted of my "Lang" geraniums that reached almost to the eaves of my small cottage.

One day George came to my house with a bundle of thirty or more "sticks" about two feet long. "Just plant these about a foot apart and you'll have poinsettias—compliments of Mom." Sure enough, they grew beautifully. These were the plants I was tending when a big black limousine with a liveried chauffeur drove up and stopped at my gate.

On the back seat sat Amelia, ramrod straight beside a slight, emaciated old man wearing a bowler hat. He had a small shawl around his shoulders and a light rug covered the knees of both. His hands rested on a goldtopped cane. I stepped across the walk to the curb and Amelia introduced me. "This is my friend, Mr. Powell Ramsdell. Meet my friend Miss Snook—my flight instructor."

Turning to me, Amelia continued, "I happened to mention at the library that I had two books for you and Mr. Ramsdell insisted on driving me out here with them."

I thanked her and invited them in, but was relieved when Mr. Ramsdell said he could not—it was past his bedtime.

The next day Amelia explained how she had met him. "One evening a few weeks ago I had selected a book from the history stacks on General Pico when a young man came in and began to examine titles close to where I stood. He glanced at a paper in his hand and repeated audibly to himself, 'Pico, Sutter, Pico, Sutter.' He turned to me and said, 'Oh, pardon me, but have you seen any books on Pico or Sutter?'"

She told me she had helped him find two that contained information on John Sutter, but that she had the only available one on General Pico.

"This I offered to him," she continued. "But he would not accept it. He said he would take it out after I had finished it. We both checked out our books and left the library at the same time. I had started down the street when I heard



hurried footsteps behind me. It was the man who had left the library when I did."

"Excuse me, Miss—I don't know your name, but my boss would like to thank you and also offer you a ride home. He's over there in the limousine."

She told me she looked across the street and saw a big black car and that she suspected the man to whom she had been talking was a chauffeur by his clothes. "I had six books which were heavy, and with five blocks to walk, I thought I might as well accept his invitation—he looked harmless."

"That's how I met Mr. Ramsdell. I see him at the library on occasion and he always drives me home. He's interested in early California history and I enjoy his conversation. So that's all there is to it."

Aside from our flying interests, Amelia and I enjoyed just doing things together.

Sometimes I ate and slept in the Earhart home, a comfortable rented house on Fourth Street, not far from Mr. Earhart's office. Mr. and Mrs. Earhart were like second parents, and although Mother Earhart was hard of hearing, she was warm and friendly.

She ran her household in a disciplined manner, and the food was served formally and in courses. Everyone had his napkin in a ring placed at the top of the plate, and the serving was done from the left. She never accepted any help in the kitchen from either Amelia or me. Perhaps Amelia helped when I was not there. This was before radio and television, and after dinner everybody read or played a few hands of cards—flinch or whist. When Amelia and I would retire to the privacy of her bedroom, we would giggle and exchange confidences. I remember asking her, "What do you think of Bill?"

Her eyes twinkled and that habitual, fleeting smile crossed her countenance. She hesitated. "I think . . . he has the nesting instinct. His eyes . . . oh, his eyes are magnificently sullen. Are you sure you're ready to give up your career?" She turned to pick up her hair brush.



"Why should I have to give up flying?"

"Because you will. He's the kind who will insist on being boss. Look at my hair. I'm cutting it. It's at least three inches shorter."

"Has your mother noticed?"

"No, I've been keeping it pinned up when I'm home. I only cut off a little every few weeks."

On my visits, Mr. Earhart always had some advice for me. We often had serious talks, and usually the conversation would include something about Amelia. He worried about her flying, but he was very proud of her.

"Meely (his pet name for her) has a wonderful brain. She'll go far," he once told me.

Father and Mother Earhart always made me feel as if I belonged to the family. I think the reason I was so welcome in their home was because they were used to two daughters. While I never could have taken Muriel's place, it just seemed natural for them to have two girls around. Muriel, three years younger than Amelia, was in school in the East.

On two occasions Amelia and I attended concerts at the suggestion and prodding of Mother Earhart. She could not completely reconcile herself to our habitual men's attire, although she was broadminded in many ways. She said, "I like to see you girls dressed up once in a while." She did not accompany us to these concerts on account of her hearing problem.

We dressed in our best, Amelia wearing a beautiful brown dress with her usual accessories of scarf, gloves and small purse. I only had two dresses—both black. One was silk and the other serge. While studying textiles and designing in college, I decided that black suited me best, although green was acceptable with my red hair. One dress had a small piping of blue that exactly matched the color of my eyes. I leaned toward high waisted dresses, while Amelia's were usually long waisted.

At the concert we sat correctly erect on stiff backed chairs and appeared to listen intently to the music. I wondered if





Frances Shimer Academy, a ladies' finishing school in Mount Carroll, Illinois, where "Mama secretly hoped that some culture might rub off on her tomboy daughter." The dome, or cupola, of the main building held a special place in our family. When other men refused to work because it was too high and too windy, Papa completed it.

Amelia's thoughts were as concentrated as they seemed. I had difficulty keeping my mind on the entertainment.

Again I was back in Mount Carroll with my mother seated in Metcalf Hall at Frances Shimer Academy listening to the advanced students' annual recital. There my thoughts were not on the music either. In fancy I had been perched on top of the dome above the hall, trying to decide in which direction to fly.

That dome had a special place in our family because my father, who had gone into the construction business after many years of barbering, had built it, with his own hands, almost in its entirety. As a child I remember when Papa came



home one evening and Mama remarked, "My, Will, your face is all chapped. You'd better use some of this rosewater and glycerin lotion."

"Yes, it's windburned. I worked all day up on that cupola—alone. Not one of the men was willing to work with me—they said it was too high and too windy."

"I'll surely be glad when all that high work is finished—it's a great worry to me," Mama answered.

On the way home after the concert, Amelia and I were unusually silent. We both knew that the past hour had provided the opportunity for individual evaluation, analysis and meditation.

Another social event we attended was prompted by my mother.

Whenever midwesterners went to California, they were urged to look up any previous resident who might have settled there. California was synonymous with Los Angeles. In this case, my mother asked me to look up the Hallets, who had lived in Los Angeles for many years. I had never seen them. They were of my grandfather's generation. I dutifully phoned and was invited to lunch. Mr. Hallet was a jolly man in his eighties who sat in a comfortable chair in front of an intriguing open-faced gas heater. The blue flames appeared to trickle over loose porcelain, much like water over stones, except this flow was reversed—upward. He was able, with the help of two canes, to move from his chair to the dining room. He loved to talk to me about his boyhood friends, and visited with me as if he were talking to my mother.

Mrs. Hallet, a plump, vivacious little woman, was at least ten years his junior. Back in Illinois they had been considered well-to-do, influential people. Mr. Hallet's father had sponsored and helped Miss Frances Wood when she first established the Frances Shimer Academy.

Mrs. Hallet was interested in my "dangerous occupation" and was doubly interested when I told her of my student, Amelia. She invited us to tea at the Woman's Club to meet her friends and also to meet Carrie Jacobs-Bond, who would provide the entertainment at the meeting.



"We always try to invite someone of note at each meeting," she told me. "A Perfect Day" was a popular song at that time, and Mrs. Bond was its composer and lyric writer.

The clubhouse was in the Westlake district. The ladies we met that day were really old-fashioned for that era—the early 1920's. They were dressed in silks and satins, and tightly corseted. Their skirts were floor length and flowing. One even had a trace of a train. All, with the exception of Amelia and me, wore hats decorated with ostrich plumes, small feathers, or bird wings set on either side at jaunty angles. Then there were the furs. I thought people came to California to get away from the cold and the necessity of wearing furs. But no—almost every lady wore a fur piece of some kind draped over her shoulder or carried on her arm. One wore a feather boa. Some wore mitts, soft lace or silk gloves without finger or thumb tips.

We laughed afterward, and Amelia remarked, "Mitts—that's a good way to get rid of my old gloves. I'll just cut off the fingers and thumbs and have mitts."

"Yes, but where do you expect to wear them—at the next air meet?" Again we broke into laughter. We could laugh at anything.

But back to the entertainment. Mrs. Bond was a warm, charming lady, tall, big boned, with thinning, light gray streaked hair and pleasing face wrinkles. We judged her to be in her seventies. She sang "A Perfect Day" in a low, husky voice to her own piano accompaniment. I especially noticed her hands. They were large with enlarged knuckles, and she wore several rings on each hand. All were diamonds in old-fashioned, heavy settings. For an encore she played and sang a number that she told us was not quite ready for publication.

When the meeting adjourned, the ladies all wished us well, but none agreed to accept our invitation to visit Kinner Field and perhaps take a ride.



Sometimes on Saturday nights we would attend a play or go to the Pantages vaudeville theater in downtown Los Angeles. Amelia would have preferred that we go alone, but I thought it was nice that we could accept dates.

Amelia had strict scruples. She didn't feel it was right for a boy to spend time and money on her if she, in turn, felt no interest in him. To her it was a form of stealing. I had no such qualms.

Also, when we went to Los Angeles, I felt more comfortable and secure with the boys around, as Amelia had a knack of wanting to explore all the out-of-the-way parts of the city. "To see the night life," she said. It wasn't safe to visit those places without escorts, so I guess that's why Amelia put up with their idle chatter.

The Mexican or old Spanish section near the Plaza held a special interest for her. She had learned some Spanish in her studies of early California settlers and was anxious to see how much she could understand.

Neither of us cared for Mexican food. It was too highly seasoned for me, and I think Amelia refused it because of the physical handling needed in its preparation. Frequently in the Mexican sector there would be a brawl between two or more of the highly emotional young Chicanos, and the knives would flash. Then the boys would hurry us away and soon we'd hear police sirens.

Chinatown fascinated me. There I once saw a tiny, stooped old Chinese woman hobble into a doorway on small, deformed feet. She had been the victim of the dreadful, and, I'm glad to say, past custom of footbinding in childhood.

We would peer down the dark, narrow alleys and wonder what was behind the closed doors. We had been told that there were opium dens where emaciated Chinese lay on tiers of bunks smoking their lives away. Behind other doors the boys told us gambling games were in progress and urged us to go in and see for ourselves. We never had the courage.



I was fond of chow mein and liked to eat in Chinatown. Sometimes Amelia would agree, and she habitually ordered boiled rice and cold sliced pork. She liked to add a few drops of soy sauce to her tea. More often we continued on a few blocks until we found a restaurant that served good old American steak and french fries.

On those nights it was easier for me to stay in town with Amelia. She had Sunday free, but Sunday was my busy passenger day. I could sleep in the morning, but always tried to get to the field before noon.







## CHAPTER X

Amelia and I flew every day, weather and business permitting. On one lesson we flew for altitude to check the ceiling of the old Canuck. The plane just wouldn't climb above 10,000 feet. After we landed and were relaxing in the hangar, I asked Amelia if she had noticed the horses in a field we had flown over.

"Oh, yes, they were running with manes flowing and tails stretched out behind them. It made me remember my days in Canada."

"Tell me about it," I said, and settled myself comfortably.

"In a riding stable near Toronto there was a horse so mean the grooms hated to exercise him. I began visiting his stall almost every day with a carrot or an apple as a kind of peace offering. He began to look for me, and finally I began riding him. The stable keeper never charged me after that—he was grateful for the way I had changed the horse's disposition and was glad to do something in return."

"Those horses made me think of my Dewey," I said. "He was of Welsh and hackney ancestry. What trials and tribulations I went through trying to feed and keep him!"

First, I had worked to try to earn enough money to buy him. I canvassed from door to door selling kitchen gadgets, magazines and popcorn, and I gathered old rags and iron to sell to the junk man. Finally my mother took pity on me and paid the balance, seventy-five dollars in all. My father didn't help me. I had to find a place to keep Dewey, since our barn now housed the Kissel Kar. A local teamster had a large barn built into a dirt bank down over the hill from us, where he kept a span of mules. There were three extra stalls. He said I



might keep Dewey there if I helped him with the cleaning.

"Are you asleep?" Amelia nudged me.

"No, I was remembering how I made Mr. Hungerford's extra stalls into a box stall for Dewey. I built an inner wall of boards about four feet high and about a foot and a half out from the barn's stone wall. In this opening I packed leaves. That made it warmer for winter."

"Where did you get all those leaves?" Amelia asked.

"I hauled them by the sackful from the courthouse square. In the fall the custodian raked the leaves on piles to be hauled away. That year I took them all."

I was again reliving those early experiences, and about the many runaways. I remembered once while I was still driving the breaking cart, Dewey was tired and should have been docile, so I took my little sister to ride the two blocks down to the barn. The two-wheeled cart had a flat, smooth seat. There was no back, but there were two iron handholds at either end, just over the wheels. Soon we were racing down the hill with Dewey in control. Vivian was enjoying it. I told her to hold tight to my arm with one hand and to the iron handhold with the other, while I sawed with all my might on the reins to try to stop him. We were almost to the barn and I knew he would have to stop there.

Then Vivian's hat blew off and she cried, "Oh, stop and get my hat—it's way back there." I cautioned her to hold tight—that we would soon go back and get it. It was a good thing my mother hadn't seen us, for she had threatened to get rid of Dewey if he ever ran away again.

"Did you drive Dewey when you hauled the leaves? I always wanted to drive a horse or pony, but we lived in towns or cities so I only got to ride in a buggy with someone else on occasion."

"Yes, Papa had the wheels of our old buggy cut down and the top removed, and he had the body painted black and the wheels red. It was a classy little rig, and Dewey stepped proudly pulling it along, but he still ran away. One time he landed on his back in a ditch with the buggy on top of him.





Amelia and Kinner's first plane, the Airster. With her mother's help, she purchased it from its builder, Bert Kinner. In the picture Amelia is wearing my leather coat. Later she purchased one of her own.

The shafts were broken, but luckily the splintered ends didn't pierce him."

"Dewey sounds unmanageable. Did you treat him with kindness? That's the best way," Amelia said.

"He followed me like a dog and came at my whistle. He even jumped the pasture fence to follow me, but he ran away whenever the notion struck him."

"Would you like to relive your young days? I don't think I would—oh, maybe some parts," mused Amelia. "I think it's time we went home. Do you want to come home with me? Maybe you can help me work on Mother about the Airster."

Amelia was trying to persuade her mother to buy it for her. Her father was not financially able to do so, nor so inclined, but her mother had a recent inheritance. All her pilot friends, including myself, advised her against it.

I had had the little plane in the air a few times. There weren't many "bugs"—only the engine gave us trouble. It was powered by a three-cylinder Laurence—60 horsepower, radi-



al, and air cooled. The oil system was so designed that the third cylinder periodically became clogged. Mr. Kinner was working on an engine design of his own, partially patterned after the Laurence.

Amelia finally succeeded in influencing her mother to help her buy it. After that, I continued her instruction in it free of charge. She had to learn all over again. The Airster, with its 17-foot wingspread, didn't have the stability of the 28-foot Canuck. So light, it was like a leaf in the air, and had to be flown every minute. Landings were harder because they were faster, and a slight cross wind could end in a ground loop. It couldn't be banked as steeply as the Canuck—the engine power was lacking. All in all, it was not a plane for a beginner.

We practiced landings in the very early hours when there was little wind. The landing pattern was toward the west and crossed Long Beach Boulevard. There were two lines of high tension wires with about eight feet between them. If Amelia came in too high so that she had to land at the far end of the field, she would nose down and go between the wires. I put a stop to that by forcibly holding the stick so she couldn't nose down.

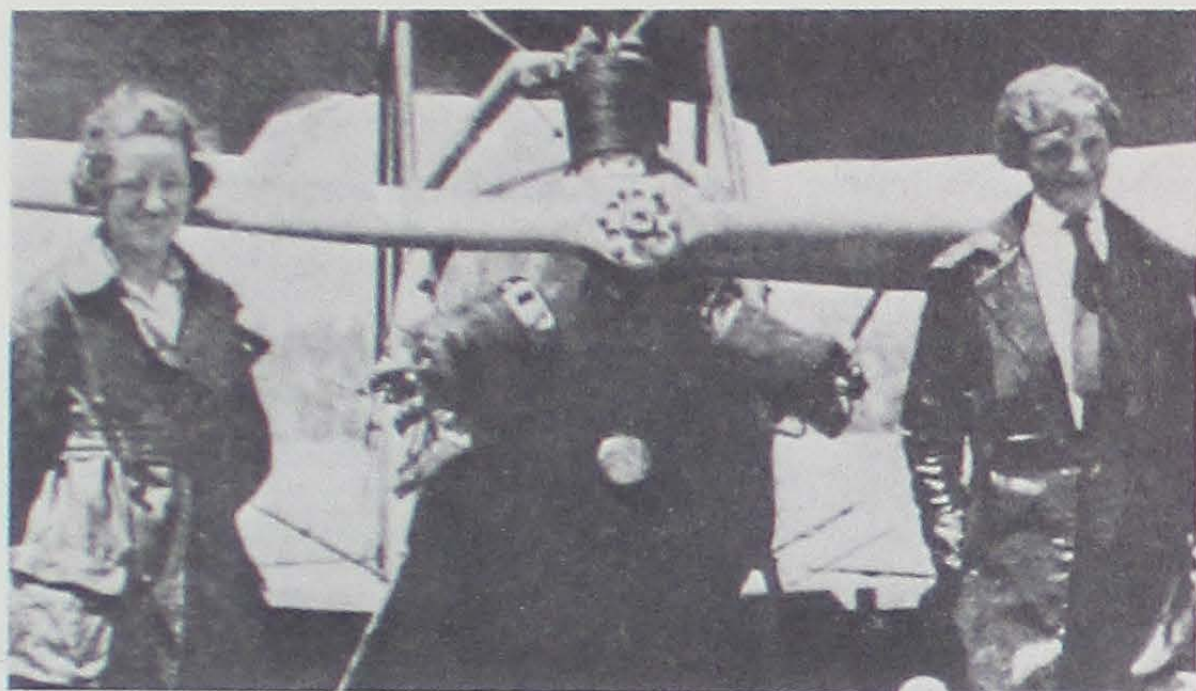
One morning I was really provoked. "Why do you persist in leveling off so high above the ground? Didn't you notice how I had to shove the nose down several times?" Then I continued in a calmer tone, "You know the Airster, or any plane for that matter, can't stand such a 'pancake'."

"I know," Amelia answered. "I guess I was daydreaming. I'll be more careful tomorrow."

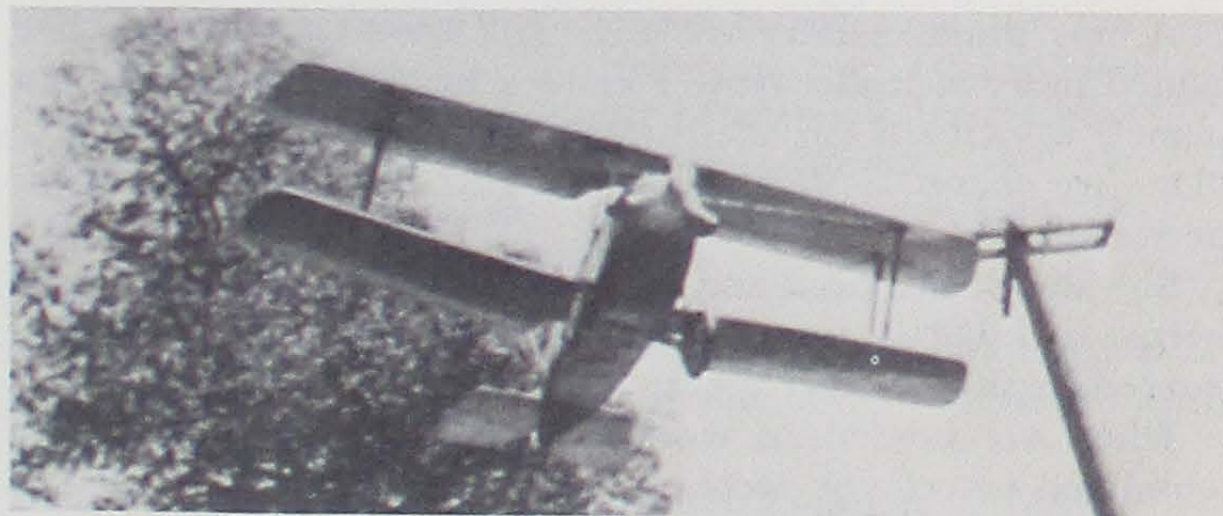
In later years when I read of Amelia's long, grueling hours spent over vast stretches of oceans, I wondered if her daydreams kept her awake. There is something hypnotic about the continued droning of smoothly-running plane engines.

"A landing plane should come in on a gradual incline," I continued. "Then a slight leveling off, and just as the wheels are ready to touch down, a pull back on the stick keeps the tail down and the plane from a nose-over."





Amelia (right) and I with the Airster. It had a 17-foot wingspan and was powered by a Laurence three-cylinder, 60-horsepower, air-cooled radial engine. It was like a leaf in the air, and had to be flown every minute. The biggest problem was that the engine's oil system was so designed that the third cylinder periodically became clogged.



After Amelia bought Kinner's Airster, I had to teach her to fly all over again. The Airster didn't have the stability of my Canuck. It was short on power and couldn't be banked as steeply as the Canuck; landings were harder because they were faster, and a slight cross wind could end in a ground loop. It was not a plane for a beginner. In this picture Amelia is crossing the power lines on Long Beach Boulevard as she comes in for a landing on Kinner Field.



If the 'level off' is too high and there is no power, the plane drops like a flipped pancake. The result can be a damaged landing gear, or even worse.

After one of those early morning sessions of takeoffs and landings in the Airster, Amelia climbed to about 3,000 feet and headed down Long Beach Boulevard. She had hinted several times about Daugherty Field. "We really should fly down to see Earl sometime. You remember he invited us the last time he dropped in here." Daugherty Field was near Long Beach, twenty miles from Kinner.

I suspected what she had in mind, and wondered if Mr. Kinner had filled the gas tank the night before. We flew along for perhaps ten minutes when I noticed our altitude had increased to over 5,000 feet, but the plane was apparently flying level. Glancing down, I saw Garcia's lettuce packing shed, easily recognizable by the warehouse that paralleled the highway and the adjoining packing shed at right angles. I knew that Garcia's was only five miles from Kinner Field. As we flew on, I speculated further as to whether Amelia had checked our gas supply or if she had relied on Mr. Kinner.

A few minutes later we were still over Garcia's but had gained more altitude. Now I knew a head wind equalled our plane's velocity. I cut the throttle and called back to Amelia, "Do we have a full tank of gas? Did you check it personally?"

She shook her head and shouted back, "Mr. Kinner always keeps it full." I opened the throttle, swung around and headed back to Kinner Field.

When we landed, a worried Mr. Kinner greeted us. "I wondered where you were. I thought you were only going to practice landings. I knew you had half a tank of gas, and didn't fill it last night. The gas truck is due this morning."

I looked at Amelia. She grinned sheepishly. "Guess we'd better get together before I have any more traveling ideas."

I was almost angry at her. Perhaps I had misjudged her abilities.





One day we flew Amelia's Airster to the Goodyear Field about six miles from Kinner Field, to visit with the blimp crew and to admire Donald Douglas' huge "Cloudster" which he was testing. On takeoff to return to Kinner, the Airster wasn't gaining altitude fast enough to clear a grove of eucalyptus trees at the end of the runway. To nose down for more flying speed meant slamming into those trees, and to pull up meant a stall. Amelia pulled up—I would have done the same—and the plane hit the ground. The propeller was broken and the landing gear damaged. This was Amelia's first crash, and when I turned to see if she was hurt, she was powdering her nose.

By this time she had had four hours and 45 minutes in the Canuck and four hours in the Airster, and I told her I felt she was capable of flying alone.

"When do you plan to take the big step?" I'd ask. "You know the plane is yours and you can solo whenever you wish."

She'd look at me with her winsome half smile, but she never committed herself. I sometimes wondered if she was over cautious or timid. The latter could not have been the case in view of the many chances she took in later years. I read in one of her books how she felt about preparedness.



She said, "I feel every pilot should know how to get out of any air emergency before flying alone." I never saw Amelia fly alone.

She never spoke to me about a desire to try acrobatics, although she knew I had done stunt flying. She also knew my feelings about the Airster, and probably thought that I would refuse to use it in acrobatics.

One day we flew over to Goodyear Field, about six miles from Kinner Field. This field was used jointly, Goodyear housing a lighter-than-air craft (a blimp) in a two-story hangar, and Donald Douglas using the field while testing his first plane, the Cloudster. We visited with the blimp crew and admired the huge Cloudster with its almost 56-foot wing-spread and twelve-cylinder Liberty engine.

A grove of eucalyptus trees grew at the far end of the runway. On takeoff, the Kinner Airster didn't gain altitude fast enough to quite clear those trees—that pesky oil-clogged third cylinder. There was nothing to do. To nose down for more flying speed meant slamming into the trees. To pull up meant a stall. Amelia pulled up. I would have done the same.

The plane stalled. A stall is hard to describe—it is a slow process and frustrating. The motor was operating at full speed, yet the plane was slowly sliding backward. On ground contact, the propeller was broken and the landing gear damaged. That was Amelia's first crash. She bit her tongue, but had presence of mind to cut the switch. When I looked back, she was powdering her nose. "We have to look nice when the reporters come," she reminded me.

I have wondered many times since if she always powdered her nose for the reporters. This was the first of many times Amelia would be interviewed. (In 1928 she was the first woman to fly the Atlantic with Wilmer Stultz, pilot, and Lou Gordon, mechanic. In 1932 she flew solo across the Atlantic. In 1935 she flew solo from Hawaii to Oakland, California. In 1937 she started and almost finished a flight around the world at the equator. These are only a few of her many records.)



One morning she and I came in after thirty minutes spent on landings. She had started each landing from a different altitude. We were trying for 600 feet on the second turn, then cutting the motor and approaching on a gradual incline. I flopped down on the board platform just inside the hangar and said, "Whew, I'm done in. Let's stretch out on the floor with our feet in the sun. Here, take one of these bags of old rags—they make good pillows."

Mrs. Kinner would bring pillow cases filled with clean rags for Mr. Kinner and any of us to use as wipe cloths.

"Oh, Neta, I know you're angry with me. I just couldn't keep from climbing." Then, on a more hopeful note, "You know the horizon was completely obscured on the west."

"Yes, but you climbed when we were headed east and the horizon was clearly distinguishable then. You have to learn to fly by feel."

"I guess that's what's meant by 'seat of the pants flying.' Some day there will be instruments to tell when you're level, or show the angle of climb," mused Amelia.

"Yes, and engines powerful enough to fly straight up," I answered.

Every student had trouble learning to fly level. All planes have a tendency to climb with the controls in neutral. I always suggested that they lock a rocker arm of the engine on the horizon, or line up some part on the front of the plane with the horizon. Then, just a glance shows if the nose has strayed above or below the line. I never had a student advanced enough to be taught side-slip and fishtail maneuvers, although these tactics were often used by barnstormers to get into small fields.

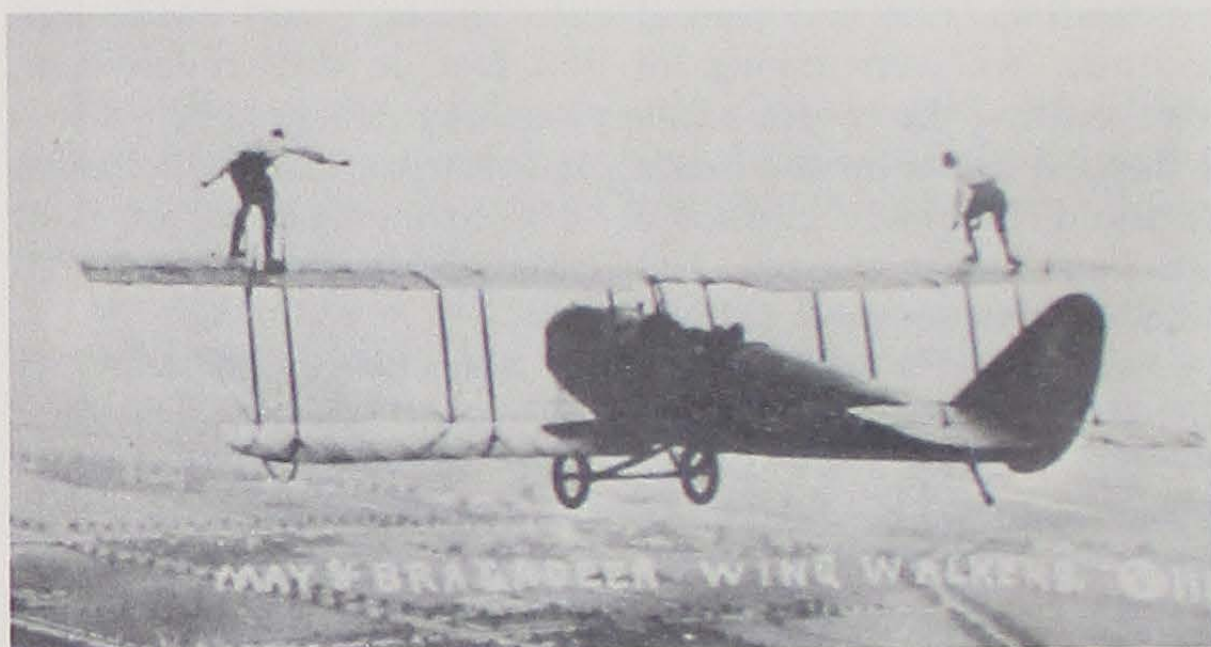
"You'll do better next time," I encouraged her. "Oh, this is restful. I hope Cam doesn't bother us. By the way, where is she?" I asked.

"I suppose she's down visiting that workers' camp. They must feed her fish. Sometimes her breath is terrible."

I must have dozed off. Mr. Kinner had to call me twice.

"Hey, wake up. Jack's putting the leather coat on a





In 1921 I was approached by the Barr Aerial Circus to join them on a barnstorming tour of the Orient. Although I already had my passport, I discussed the project with Amelia's father, who told me they were financially unsound. Following his advice, I decided to stick to my passenger carrying and student teaching in this country.

passenger—another fifteen bucks. That'll buy you another pile of 2x4's."

That remark had to do with my building project. Shortly after purchasing my cottage, I had started to build another house at the front of the large lot. It was built with the help of one paid carpenter and a lot of volunteer labor. When it was too foggy or windy to fly, I'd invite any of the boys hanging around the field to come up to my place and work. There was a variety of talent among them. We even dug a cesspool 33 feet deep.

Some of these young men were pilots from World War I who had difficulty finding just what they wanted out of life. Adjustment to civilian life was not easy. Others hung around the field hoping for a chance to get into the air as a free passenger on a test flight. Our building parties were fun. Mrs. Adams liked all young people and they liked her. She had lemonade and cookies for us.



I got up from my snooze and thought, "There ought to be an easier way to make a living." When I landed after giving my passenger a few thrills, I found two young men waiting to talk to me.

They told me they were retired army fliers and were getting up a company to tour the Orient. They asked if I would join them. One of them, a Mr. Barr, had previously introduced himself to me.

"What did you have in mind for me to do?" I asked.

"We thought you could do loops and spins—regular barnstormer's entertainment. We plan to do a plane change act and would like you to fly one of the planes in that."

A plane change act involves two planes and a wing walker. One plane goes aloft with the wing walker in the front cockpit. At about 800 to 1,000 feet altitude, the wing walker climbs out of the cockpit on to the top wing and to its outer tip. The second plane then flies close enough so that the wing walker can grasp the wing skid on the lower wing of this second plane. From there he climbs onto the wing and into the front cockpit of that plane.

"We're flying from a strip of sandy beach at Santa Monica," Mr. Barr continued. "Why don't you come down and try our equipment—they're old Jennys. Mays has expressed interest and has had experience as a wing walker."

Wesley Mays, I knew. He was a frequent visitor at Kinner Field. He rode a motorcycle and wore a black leather jacket and goggles. He was always trying to get any pilot to fly low over a field with a long rope dangling from the undercarriage so he could speed down the field on his motorcycle, grasp the rope, and become airborne. I wouldn't consider it. He did put on that act and a wing walking stunt for an air show at Daugherty Field at Long Beach. He said he was practicing for the movies.

I flew down to Santa Monica a few times and they flew up to Kinner Field, and we practiced some plane changes. When Mr. Earhart found out about it, he was emphatically against my joining them.



"Daddy's having them investigated," Amelia told me. "He wants to see you before you make any commitments."

I went ahead and got my passport, but also stopped to see Mr. Earhart. He told me his investigations showed that they were financially unsound.

"The first crash that totally wrecks a plane will leave you without necessary equipment and maybe injured. However, if you insist upon going and get stranded, I'll cable you return fare."

I continued with the plane change practice. One morning when I flew down to Santa Monica, they brought out a new reconditioned Jenny painted a garish green.

"A coat of paint covers a multitude of sins," ran through my mind. Mr. Barr suggested that I take it up a couple of thousand feet and do a few loops. When I got in, I found it was lacking a regulation seat and had only a makeshift one, and that was placed so far back that I could scarcely reach the rudder bar.

"We'll soon fix that," he said, and took the cushion out of another plane and put it at my back.

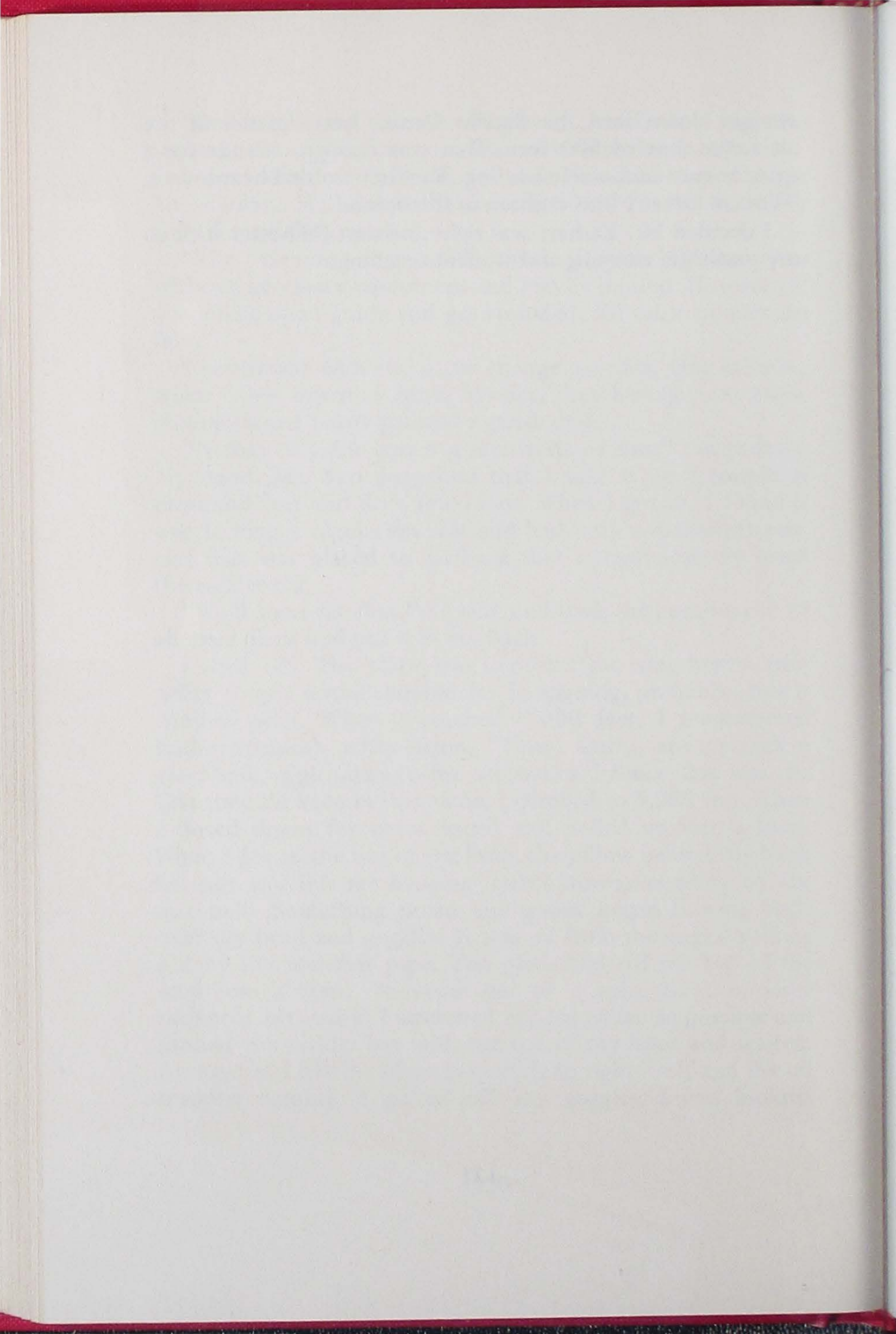
I took off. The plane was slightly right wing heavy—propeller torque not accounted for in aligning, probably—but it climbed well. When I reached 2,000 feet, I remembered Eddie Stinson's admonition, "Now, Curly, always pick a good safe, high altitude for acrobatics." Since this was the first time I'd been in this plane, I climbed to 5,000 feet. Then I nosed down for extra speed and pulled up into a loop. When I got to the top of the loop, the pillow behind my back fell out and left me hanging upside down, dangling by my seat belt. Something warm and gooey began flowing back over my head and goggles. It was oil from the engine spilling out of the breather pipe. The plane slid off the top of the loop into a spin. To come out of a spin, hard opposite rudder is necessary. I stretched my leg as far as possible and pushed the rudder bar with the toe of my boot and waited. As soon as I felt the plane beginning to right itself and the oil stopped coming, I pulled off my goggles. I was looking



straight down into the Pacific Ocean, but a glance at the altimeter showed 500 feet. That was enough altitude for a quarter turn and a safe landing. The first words I heard were, "You've lost my best cushion in the ocean."

I decided Mr. Earhart was right and that I'd better stick to my passenger carrying and student teaching.







## CHAPTER XI

Shortly after this, the Aero Club of California held its first air meet at the Beverly Hills Speedway, which had been built as an arena for racing motorcycles. I think this was the first local air meet in the area.

The only air shows up to that time were performances by the Curtiss or the Wright teams, who vied with each other. Each team consisted of five or six stunt fliers. These teams gave exhibitions at various large cities, shipping their planes from place to place. All the planes were pusher types.

Lincoln Beachy, a San Francisco boy who built his own plane and taught himself to fly, was the best known of these fliers. He used to say, "I can fly a barn door if you'll give me an engine to put on it." In 1915 he fell to his death in San Francisco Bay while flying a German Taube with a Gnome engine. He had lightened the plane to the extent that the wings had the strength of 'butterfly wings'. First one and then the other collapsed.

Bob Fowler, a veteran plane rebuilder and pilot, had begged his friend Linc to reconsider and not remove the outer struts, but Beachy was insistent. Bob told me four years later, "I didn't watch that flight. I knew what would happen."

In this first show, Mr. Kinner entered the Airster. This was before he had sold it to Amelia. Amelia and her father went to the Speedway as spectators. I couldn't take her with me because I was advertising Wilshire gasoline and the extra seat in my plane belonged to the sponsor on such an occasion. The only other plane to go from Kinner Field was the Airster, flown by John (Monte) Montijo with Mr. Kinner as passenger. Monte, a World War I pilot, sometimes demon-





A student passenger sits in the front cockpit of my Canuck as I readied the plane at Kinner Field for an air meet at Beverly Hills on February 22, 1921. I didn't win a race, but I didn't come in last either.

strated the Airster, and always flew it in the air meet contests.

Monte was a particular friend of mine and had married Alta Kessler, a girl from my home town in Illinois. He and Alta operated a fruit stand on Long Beach Boulevard just across the street from Kinner Field. In addition to the fruit business, he piloted a Lincoln Standard for a wealthy oil man, often refueling at our field and sometimes keeping the plane there. When I left Kinner, Monte took over my unfinished students and later on flew United States government mail routes.

At this first Beverly Hills meet, on February 22, 1921, there were four races. The first was a free-for-all non-stop to San Diego and return, 240 miles (4 entries); No. 2, Sport Planes Special, 36 miles (6 entries); No. 3, Commercial Derby, 36 miles (13 entries). I was an entry in that race. Mr.



Kinner's Airster was the first entry and he was recorded as both pilot and owner, but I know he didn't fly alone at that time, so an army officer must have been the pilot because Monte flew a Desert Rat owned by the Bluebird Aeroplane Company in that same race. The fourth and last race was the Aero Club Classic—42 miles. Representative planes of all makes—factory and homemade—were entered. Mostly they were Curtiss JN4D's and Canucks. There were some specials built and flown by their owners—Hoff, Barnhart and Polson. Catron and Fisk had a triplane entry flown by E. L. Remlin. B. H. DeLay flew a Circe Special and Remlin flew a Lincoln Standard in the last race.

The long distance entries were an all-metal Junkers, a Brand-LePere, a Hall-Scott Oriole and a Hall-Scott Fokker. Frank Clarke flew the Fokker and Wally Timm flew Frank's Canuck. The Speedway directors were Danziger, Peck, Durant, Lasky and DeMille. Barney Oldfield was referee.

I didn't win a race, but I didn't come in last either. We flew around flag pylons at either end of the speedway. Those who banked steepest could make the shortest turns. We flew only about 600 feet off the ground and I never liked to bank steeply so close to the ground and invite an unwanted sideslip.

Of those in Class 3, the winner was E. C. Robinson in 23 minutes, 3 seconds. I came in fifth with my Canuck at 28 minutes, 19 seconds. Three followed me, with the longest time being 30 minutes, 22 seconds. The Kinner Airster dropped out after the fifth lap. The *Los Angeles Herald*, in reporting the event, said, "Miss Neta Snook, our local lady aviator, shoved a Canuck around the course in good time, winning fifth place. She took fewer chances on the turns, but otherwise was apparently as good a pilot as anybody."

On Friday, April 1, 1921, Mr. L. C. Brand, a Los Angeles banker, gave a fly-in party. The invitation stated, "Attendance via aeroplane only," and included printed instructions to pilots as to the exact location of their aerodrome. "The L. C. Brand Aerodrome is located along the foothills between





Hangar and a LaPere Special at the aerodrome of L. C. Brand, a Los Angeles banker. I was invited to a party at the Brands' estate and the invitation read, "Attendance via aeroplane only." Among those present were movie stars Mary Miles Minter and Ruth Roland, who came with army officers flying DeHavillands from March Field.

Glendale and Burbank about five miles north of the Mercury-Rogers Field at Hollywood. The field is 1,800 feet long. To enter, glide over small trees at the foot of the field and land on "T" towards the hangar. D.H.'s can cross the trees low at 85 miles per hour without danger of overshooting."

Among those who attended the Brand party were two movie stars, Mary Miles Minter and Ruth Roland. They both came with army officers flying DeHavillands from March Field.

Mary was a petite little thing with deep violet eyes rimmed by natural dark lashes. She wore a helmet and a tan leather coat over an ankle-length dress.

Ruth was a tall, striking brunette. She wore a stunning



black and white outfit. The pants were white and her leather coat, helmet and boots were shiny black. I was so impressed by her clothes that I dyed my leather coat black with liquid shoe blacking, and a few months later carried the black motif to extremes by painting my plane to match.

Both girls were friendly, but Ruth was more outgoing. They were surrounded by admiring army officers.

The local pilots of the day were there, and some of them brought noted people. Sometimes they came in with a flourish—at the end of a loop or a spin. Hamelin dropped in by parachute. Waldo Waterman had Barney Oldfield as guest passenger. The newspaper later said there were twenty planes in all, and most of them carried two people.

Mr. Brand owned two planes, a Hispano-Curtiss and a LaPere Special, which were flown by Gilbert C. Budwig. Waldo Waterman had built the LaPere at a cost of \$20,000. Barney Oldfield had his first ride that day, so the *Los Angeles Times* stated.

On November 12, 1921 there was an Air Rodeo at Daugherty Field, Long Beach. I flew down but did not enter. The Kinner Airster, flown by Monte, performed well in the four events which he entered—Event No. 2, the accuracy landing contest, Event No. 10, landing over an obstacle, Event No. 14, a figure eight contest, and Event No. 16, a looping contest.

Winfield Bertrum Kinner, a native of Iowa, was a true pioneer. In 1915 he saw his first aeroplane and met a California pilot, Otto Timm. In 1918, together with his wife, Cora, and two little boys, he moved to California. There he began as a builder of custom bodies for Ford Model "T" chassis. In 1919 he started building his first aeroplane from plans which he kept mostly in his head. By 1920, after extensive remodeling, he came up with the Kinner Airster as I knew it—the Airster which Amelia purchased.

It was shortly after I began my commercial venture in the latter part of 1920 that I was called upon to keep my part of the bargain, to test fly the planes he built.



Almost every morning he would trundle the Airster out on the field, tie it down and work on the engine. One morning he removed the chocks, turned to me and said, "Take it up."

I'm not sure if that was the first time it was in the air. I remember thinking, "The field is long. I can set it down again if I don't feel it's airworthy."

All three cylinders fired perfectly, and I made the first turn with enough altitude to get back to the field if necessary. I flew figure eights over the field for fifteen or twenty minutes and came in with a passable landing.

Mr. Kinner was so pleased with the plane's performance, he said, "I must go and call Cora right away."

Although the little Airster never made spectacular showings in any of the air meets, Mr. Kinner continued to struggle against all odds. He changed and improved the 3-cylinder Laurence until eventually he designed and built a 5-cylinder air-cooled radial engine—the K5.

In the mid Twenties aeroplane designs were changing and the heavy water-cooled Curtiss OX-5's were becoming obsolete. Air-cooled radials were the coming thing. The K5 was a natural replacement for the old OX-5's, and the Kinner Corporation was already producing them. Over eight hundred were sold before the Great Depression.

But, big business was confining to free-thinking Bert Kinner and he withdrew from the company bearing his name, and in 1933 came out with a new plane called the Security S-1 Airster, a folding wing design. A new corporation was formed and planes were sold to Japan. Eventually the business failed, but during World War II United States carrier-based fighter planes with Kinner-type folding wings were used by the Navy.

I recall many pleasant memories of my association with the members of the Kinner family. Mrs. Kinner made a delicious vegetable stew; and Mr. Kinner often advised Amelia and me on aviation matters.

One morning when Amelia came to the field, she said, "This is the day I'm going to learn to drive a car." She had



\$20. "We'll go up to Vernon and rent a car. You rent it because you have a license. Then I'll drive." Drivers' licenses had first been required in California in 1920. Mine stipulated, "Good until revoked." I don't recall a written examination, and no driving test was required. I just remember reading a notation in the paper that all drivers were required to get a license.

The cost of a car license in California, on cars of all sizes and horsepower, was \$3. When I had left Iowa, that state was basing its license charge on the horsepower of the car.

We rented a Model "T" Ford touring car in Vernon, the industrial section of Los Angeles, and paid the \$20 to guarantee its safe return. When we brought it back, the cost of mileage and hours plus gasoline was deducted from the \$20, and, as I remember, we received a small refund.

I drove a few blocks and then Amelia said, "Now I'll drive." Only those who were living in that era will remember how Henry's "Tin Lizzie," manufactured between 1909 and 1928, was operated. It did not have the simplicity of the automatics of today. The Model "T" had a planetary gear system. There was a hand lever on the driver's side. On the floor were three foot pedals. The first pedal was low, high and neutral, depending on the position in which it was held. If it was pushed ahead, the car was in low gear. If it was completely released, or way back, it was in high. The middle position between these two was neutral.

The second pedal was reverse. To back up, it was necessary to hold the first pedal in neutral with the left foot, teetering between low and high, while a gentle, even pressure was exerted on the second pedal with the right foot. The third pedal was the brake. It would have been convenient, sometimes, to have had three feet.

Just under the steering wheel, on opposite sides, were two hand levers. These were operated by the last two fingers of the hands, while the thumbs and first fingers gripped the wheel. One was the spark and the other the throttle. Both had to be almost constantly adjusted. On the dash in front of



the passenger seat was a small pull-out button. This was the choke. There was NO self starter. Any mistake in the simultaneous operation of any of these controls would result in a stalled engine. We did a lot of cranking that afternoon, but Amelia learned to drive the Ford.

After many stops and starts without stalling, she said, regretfully, "I guess we'd better get this car back to the lot before the \$20 is overspent." She drove the return trip, improving all the way.

"Do you want me to drive it back into the lot?" I asked.

"Oh, no," answered Amelia. She drove up to the lot a little faster than prudent, gave the wheel a turn, missed the driveway, and drove up over the curb!

Amelia loved driving so much that she was always looking for an opportunity to practice her new skill. There were usually several Model "T"s parked by the hangar in various states of demolition awaiting one of Mr. Kinner's custom-built sport bodies.

Mr. Kinner never refused our requests to drive one of them. Amelia, while in many ways a "loner" as some authors describe her, always wanted me to go driving with her. There were always boys hanging around the field who would gladly have accompanied her, but she loved to take Cam, and Cam was reluctant to go without me.

Whenever possible we took the two-seated, topless touring car. It had been there the longest, but the matter of "First come, first served" didn't apply in Mr. Kinner's choice of the next chassis to be "served." We liked the touring car because Cam had the back seat all to herself. It wasn't comfortable to ride in a car with Cam on the seat beside you. She had a great feeling of "togetherness" and you soon found yourself wedged in the corner with Cam's 125-pound warm canine body reclining against you.

There was another reason why we liked that two-seater, and Cam would have chosen it over the others had she been consulted. It had no top, and while the car was in motion she stood with her hind feet on the back seat and her front feet



on the back of the front seat, with her head held high to get the flow of wind over the windshield. This stance made her look larger than she really was, and of course she drew attention everywhere we went.

People would pull alongside and ask, "What kind of a dog is he? I never saw one like it. Where did you get him?" Occasionally when we stopped for a traffic light we would feel a slight bump from behind from a vehicle that was following too closely. The driver was more intent on Cam than his driving.

Amelia was always torn between her desire to drive and her desire to watch the reaction of the other motorists. She still had to concentrate on her driving so as not to kill the engine in slow traffic, and she felt great embarrassment over unnecessary cranking. I don't think she thought too much about us being an "attraction." She received genuine pleasure herself when she could contribute to anyone's enjoyment.

One of her arguments for the touring car was, "Let's give Cam a little pleasure—the life she leads must be terribly boring." Then, too, she always enjoyed the smiles on the faces of happy children in the passing cars. "Did you see that solemn little boy? He finally smiled."

Sometimes when she became so engrossed at the varied facial expressions in the other cars, she'd pull over and say, "You drive a while—I just want to look." Sometimes she had her camera, but I don't remember any good pictures of studies in expression.

I'll never forget one really amusing incident. We were driving down Wilshire Boulevard and I was at the wheel. We weren't going more than ten miles an hour. The day of fast driving was still a decade or more in the future. Wilshire was a two-lane street lined with stores and restaurants. The roadbed was raised down the center and sloped to the gutters on either side. All Los Angeles streets were built that way to take care of the floods caused by the few hard winter rains.

We proceeded down the street with Cam in her usual position drawing the customary stares and remarks when the steering wheel came off. I found myself in the awkward



position of a steering wheel in hand but no control. The car gradually veered to the right due to the grade of the road. I eased down on the brake while trying to fit the wheel back in place. Luckily there were no parked cars, and our car gently came to rest with the radiator just nudging a tree.

I remember a nearby pedestrian who witnessed this. He looked at us in disgust as much as to say, "What else can you expect of such 'nuts'?"

Amelia retrieved the fallen column nut on the floor at our feet and searched for the little metal key that held the wheel locked to the column. I raised the front seat cushion and removed the tool kit that Henry Ford so thoughtfully provided with each of his models.

The kit contained a jack, two tire irons (one served as a jack handle), a pair of pliers, a hub wrench and a "knuckle buster." The latter, a monkey wrench, was so named because it invariably slipped off the nut on which it was being used; the result—bruised knuckles of the user. Many kits were minus the "knuckle buster" because it had been thrown away in a fit of anger. We soon had the nut back in place with the small metal key in the slot which locked the wheel to the column and were on our way again.

"Now do you think I can qualify as a mechanic?" asked Amelia.

On the way home we planned for a forthcoming air meet. This was to be held at the Beverly Hills Speedway on July 17, 1921. We had two planes to get there, Amelia's Airster and my plane, but still only one solo pilot—me. We flew the Canuck over first while there was still someone on the field to pull the prop. When we got there, we parked it and hitchhiked back to Kinner Field. That was the first time I ever saw our field completely deserted. Everybody was at the Speedway, but we had no trouble starting the Airster's engine. The propeller was smaller and the compression of the 3-cylinder Laurence was slight compared to the 8-cylinder Curtiss OX-5 in my Canuck.



A few days before, Amelia had come to the field decked out in a new leather coat which she had bought especially for this occasion. The boys had teased her, "Look at our dude aviator. Be careful and don't get it dirty." The next morning when she appeared, the coat was wrinkled and oil spotted. "I slept in it last night. Does it look used now?" she whispered to me.

I was entered in the meet and flew the Canuck in the Commercial Derby or the "Jenny Scramble." The other pilots were A. C. Mann, Earle Daugherty, M. A. Moltrup, Emery Rogers, Hubert Kittle and Frank Tomic.

Amelia's Airster was entered by the Kinner Airplane and Motor Corporation and was flown by Monte in the Altitude Contest around pylons at 5,000 feet. When Mr. Kinner sold the Airster to Amelia, he reserved demonstration rights and that was why it was entered in his name.

Amelia did not return with me that evening in the Canuck. One of the army officers flew her home in the Airster.

Among the many visitors who came to Kinner Field, none were more welcome than the "Blimp Boys." The blimp was a lighter-than-air craft built by the Goodyear Tire and Rubber Company at Akron, Ohio. One was housed in a two-story hangar on Goodyear Field. This blimp was flown periodically over the Los Angeles area and carried Goodyear advertising painted on its sides. Usually the last circle of their return journey was made over Kinner Field. If there was no wind and if there were a lot of fellows on the field, the crew would throw down their mooring ropes, stop, and visit a while. It took ten or more men to hold the big bag down.

At the end of one of these visits, the pilot, Roy Knabenshue, asked me, "Would you like to pilot this craft back to Goodyear Field?" I was delighted. One of my childhood dreams was coming true!

I climbed aboard the blimp by a rope ladder and took my seat in the gondola, swinging below the huge gas bag. At the back of the gondola was a 3-cylinder, 60-horsepower Laurence radial engine with its propeller facing the rear. It pushed

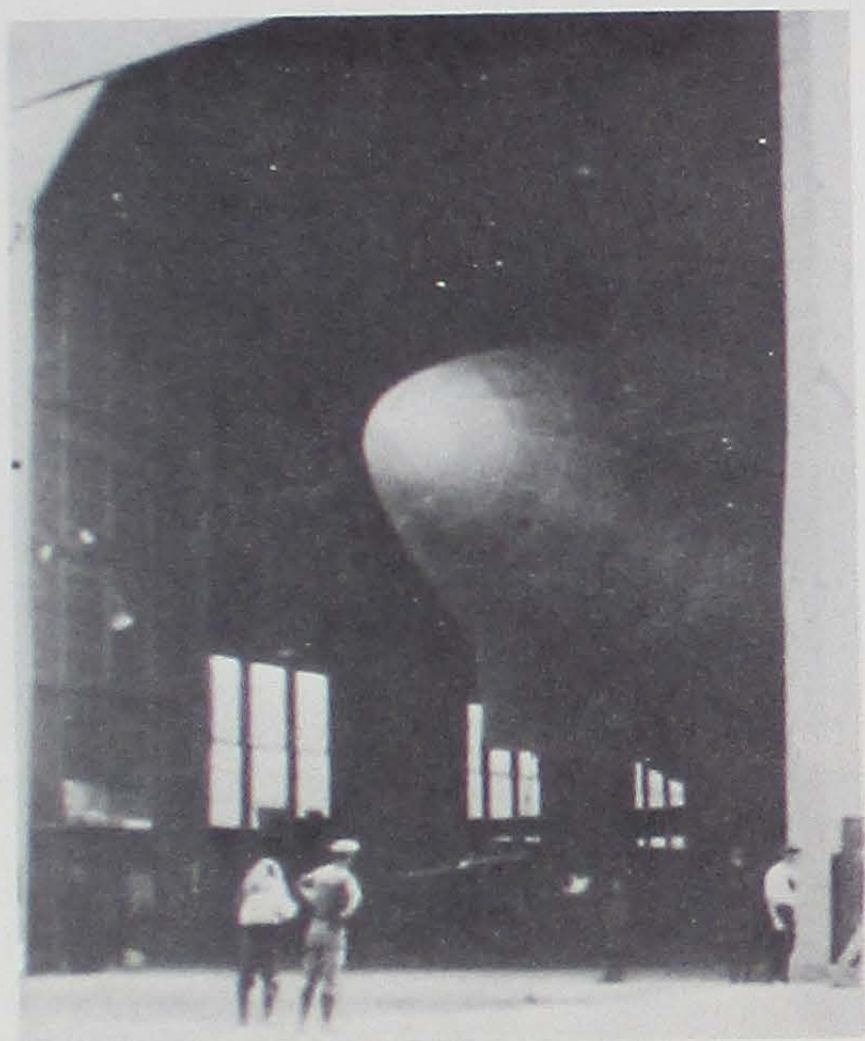


the craft through the air at a very slow speed.

The controls were similar to aeroplane controls, but whereas the slightest touch on a plane control gives instant response, the blimp controls were sluggish. The rudder was the most-used control. To turn, you pushed the rudder bar and waited. Finally the craft would come around in a wide curve. I had no chance to climb. My blimp experience was, for the most part, at a stable, even altitude of several hundred feet that ended in a gradual descent to the Goodyear Field. There the craft was quickly guided by the ground crew, holding the cast ropes, into the hangar.

Several years later, when the blimp was deflated and sent back to Akron, Amelia purchased the engine to replace the one in her Airster. The blimp motor had been run at low speeds for so long that it couldn't stand the strain of the high speed required. While in the air, a spark plug blew out. It was lucky that she was over a field—one cylinder gone out of three was a real calamity.





The blimp in its hangar at Goodyear Field with my black-painted Canuck beneath it. If there was no wind and plenty of help on the ground, the crew would sometimes land the blimp at Kinner Field so they could visit. On one of these occasions, I was invited to pilot it back to its base. It was an interesting experience, but I found the response to the controls sluggish as compared to a plane.





Mementoes from my collection of "yesterday" include my propeller clock, a figurine given me by Amelia on my birthday in 1921, and a treasured tintype of Papa, Mama and me.

## *CHAPTER XII*

Sometimes I'm asked, "Tell us about your accidents or the unpleasant side of an aviation career."

I had a few accidents but they were minor. I broke my first propeller when a small, unnoticed ditch in a farmer's field caused a nose-over. This was somewhere in the middle states during a barnstorming tour. One of my friends made the hub portion into a clock housing and fastened a rim-wind auto clock he had found in a junk yard into the hub opening. It ran as long as I remembered to wind it.

Sometimes a student would make a hard landing and crack a wing skid. On one of those hard landings, a wheel dropped



in a chuck hole and damaged a wing tip that required extensive repairs.

I never took unnecessary chances. My friends called me "a safe flier." A great many of my acquaintances lost their lives in those early days through accidents which could have been avoided.

I had one unpleasant experience. A man whom I'll call Bert Smith came to the field and identified himself as the head of an aircraft corporation. He said a group of men were going together to purchase a plane. He asked if I would like the job of flying it and teaching them. I said, "I'll be glad to, especially since you intend to keep the plane on Kinner Field." I heard nothing more about it until one morning when Amelia arrived and she was in a state of agitation.

"Daddy wants to see you—right away."

"All right. What about? Why the hurry?" I asked.

"Did you know about the letters that man Smith has been writing to the lawyers of this area?"

"I know nothing about any letters. I only know he is putting together a corporation that expects to buy a plane. He has asked me to fly it and teach those who buy into it."

"Daddy got one of his letters and he's up in arms. The letter said anyone buying into the club might expect special favors from you."

"What kind of favors?"

"Well, if you don't know, I'm not going to tell you." Amelia was miffed that I showed so little understanding.

The letters were suggestive, and Mr. Earhart made Mr. Smith send out letters of apology to all the recipients of the former letters. He also complained to the Aero Club of Southern California, and Smith was dropped from their membership.

On December 8, 1921, the first Aviation Ball was given by the Aero Club at the Ambassador Hotel in Los Angeles. Louis Verdier of the Lafayette Escadrille, who fell in France on August 21, 1918, was given recognition. His grandfather had



started the department store, "City of Paris," in San Francisco. At that time his famous aviator brother was president of the firm and accepted the plaque.

Tribute was also paid to Emery Rogers, who had been killed in a crash. The Rogers Airport was still in operation.

Of the three airfields in the Los Angeles area—Rogers, Goodyear and Kinner—I think Rogers was the busiest; but important aviation history was being made at Goodyear. A small, one-story board and batten building with a sheet metal roof housed the Davis-Douglas Manufacturing Company.

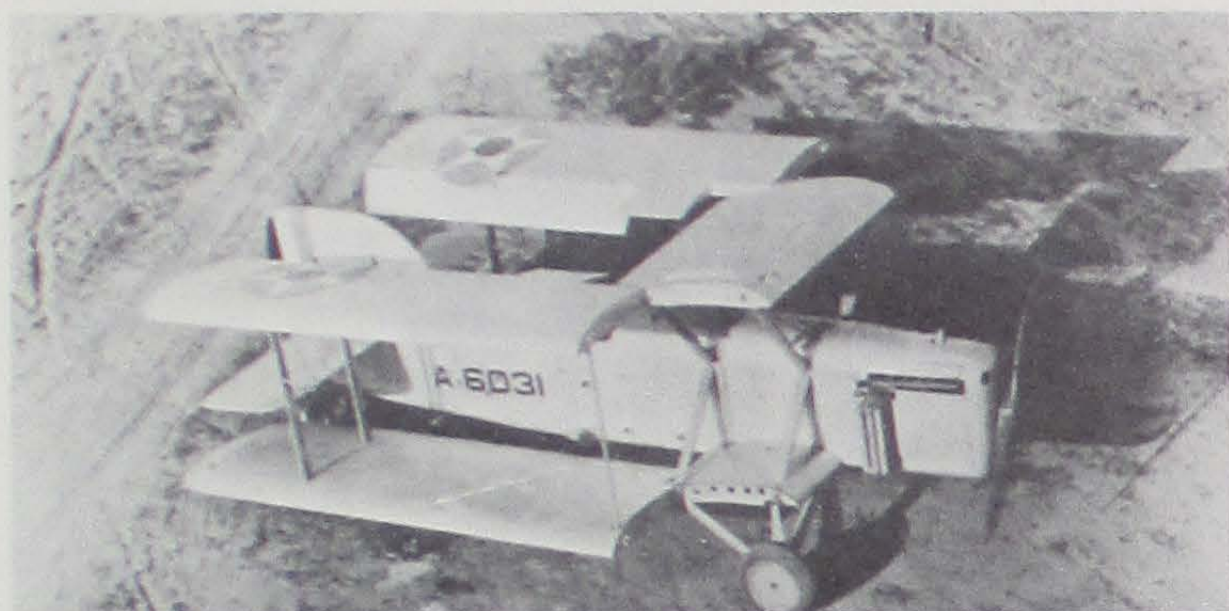
David R. Davis was a well-to-do young man who engaged Donald Douglas to build an aeroplane that could fly from coast to coast nonstop.

Douglas had attended the U. S. Naval Academy and the Massachusetts Institute of Technology. In 1916 he was chief aeronautical engineer for the Aviation Section of the Army's Signal Corps. He designed the Martin Bomber of World War I. In 1920 he began testing his latest-designed and -built aeroplane on Goodyear Field. It was called the Cloudster—the first DC—and the first plane able to carry its own weight in payload. It had a wingspan of 55 feet, 11 inches, and was powered by a 400-horsepower Liberty engine. It was a two-place biplane. On the strength of the Cloudster's performance, Douglas received his first government order for three biplanes. The wings of these planes folded back against the fuselage, making them easy to transport and to store. They were equipped with both pontoons and wheels—interchangeable.

When it came time to cover the wings of the first plane of the government order, Mr. Douglas asked me to come over and help set up a wing department. In my spare time I sewed the linen covering for that first plane, and we established a wing section in the blimp hangar with the blimp floating above us.

I was overjoyed to find three of the men from the school in Davenport working there. One was none other than Mr. Louie, my first flying instructor.





The first biplane Douglas built for the United States Government had wings that folded back against the fuselage, making the plane easy to transport and store. It could be equipped with either wheels or pontoons, as they were interchangeable. When it came time to cover the wings of this first plane, Mr. Douglas asked me to set up his wing department, which we did in the Goodyear blimp hangar with the big bag floating above us.



A side view of the first plane Douglas built for the United States Government, showing the pontoons in place.





One day when I entered Douglas' little factory at Goodyear Field, I was overjoyed to find three old friends from the Davenport Aviation School. One (left foreground with mustache) was my first flying instructor, Mr. Louie, who was now Mr. Douglas' expert on aluminum welding. Another Davenport classmate was Walter "Tex" Frey (third from right), a bit quieter than when I first met him, but still pretty much the same old Tex. My third old friend in the shop was Lloyd Royer (second from right). He had been through World War I safely and was now the Douglas expert on fuselage construction and maintenance. I saw quite a bit of Lloyd after that.

The last time I had seen Mr. Louie was in 1917 when he was in the Davenport hospital following the crash of our first plane, and he was not expected to live. Now his face was slightly misshapen and he walked with a decided limp. He was an expert in aluminum welding, and, in that capacity, indispensable to Douglas.

He told me of the wonderful care Mrs. Reginetter had given him after he was released from the hospital. I had never forgotten her or the pleasant boarding house she kept for the



students of the Davenport flying school.

"You know, Curly, Heidi and me, we got married. We want you should visit us. I'll tell Heidi tonight."

Heidi was Mrs. Reginetter's elder daughter. I spent an entire day in their pleasant little home in Eagle Rock.

Another of the boys was Tex (Walter Frey of San Antonio), the one who had so patiently explained all about plane construction to me such a long time ago. He was more reserved and a bit quieter than when I last saw him, but still the same old Tex.

The third was Lloyd Royer. He had been through World War I and returned safely. Now he was the expert on fuselage construction and alignment. I saw quite a bit of Lloyd after that.

While I was helping Douglas part time, I had a repair job to do on my own ship. A wing tip had been shattered and the covering was torn on one lower wing. The entire wing had to be recovered. The simplest way to make these repairs would be at Goodyear Field, since I was already working there and had the necessary material and a double-stitch sewing machine. I pulled my Canuck into the blimp hangar where there was ample room under the blimp as it floated near the ceiling, and worked on my wing repair at night.

Since it was a good two and a half miles from Goodyear Field to my home in Huntington Park, Mr. Kinner loaned me one of his Ford chassis to drive that week. "It's too far for you to walk, and hitchhiking at night is not advisable," he said.

The chassis consisted of the frame, motor, wheels and the cylindrical gas tank which was fastened to the frame (just below the seat, if there had been a body on the chassis).

I sat on the gas tank to drive, and as there was no floor, I laid some boards on the frame behind me for Cam to ride on.

One night by the time I was ready to leave the field, the fog was so thick that I had only the white line in the center of the road to guide me. Ford Model "T" lights ran off the magneto, and their brightness was regulated by the speed of



the motor. I had to drive slowly; therefore my lights were dim. The right side of the road appeared as a black abyss. There were quite a few cars coming and going each way on Florence Boulevard, a busy two-way street. It was about two miles before I could turn off on one of the cross streets. Cam became restless, so I drove with one arm around her neck and the other hand on the wheel. She resented my holding her so tightly and began pulling back. I couldn't let go of her or she would have tumbled off backwards in the path of the following cars. I couldn't slow down or my lights would go out. I began talking gently and soothingly to her, trying to remember how Amelia always quieted her. "Now Cammie girl, be a good girl, we'll soon be home."

Finally, much to my relief, we made the turnoff safely into the street that led to my house.

My next maintenance job was to retip the propeller and I invited Amelia to be with me when I started the work.

"I'll be there," she promised. "I might have to do that some time and I want to know how it's done."

The propellers were made of laminated layers of wood glued together, then shaped as to pitch. Many landings in fields with weeds were hard on the props. As they whirled and thrashed the ground growth, small particles of wood were torn from them. This would put them out of balance as well as destroy the tips. The remedy was to partially cover the propeller tip up to about eighteen inches with copper metal. To do this, we cut front and back pieces of copper to fit the propeller blades and securely fastened them on with small wood screws. Where the front and back pieces of metal met around the tip and partially up the sides, we soldered them together. The copper tip looked something like a half sock on each blade. The screws were countersunk and the heads covered with solder and then filed smooth.

"Now we'll balance it. Will you take that glued lamination out of the vise?" I asked Amelia. "And put that short piece of two-inch pipe in the vise."

It was necessary to have the prop in complete balance. One copper sock could not weigh more than the other. To gain





Friends from the Douglas plant greet me as I arrive at Goodyear Field in my Canuck to set up the Douglas Aircraft wing department. David R. Davis, who engaged Douglas to build a nonstop cross-country plane, is on my right (wearing white pants) and Eric Springer, Douglas test pilot, is second from right.



A group of civilian pilots and army officials with the Donald Douglas Cloudster, the first DC and the first plane to carry its own weight in payload. Among those pictured at Goodyear Field in 1921 are Donald Douglas, far right, and David R. Davis (center, wearing glasses), a wealthy businessman who had commissioned Douglas to build a plane that could fly coast to coast nonstop.





Frequent visitors to the Douglas plant at Goodyear Field in the early twenties were, left, Barney Oldfield, of auto racing fame and his ever-present cigar, and Eddie Rickenbacker (wearing helmet), who was to make aviation history. The plane was a Fokker D-VII.

this balance after tipping, we put the propeller on a pseudo hub consisting of a piece of large pipe securely held in the bench vise. The blades had to balance on this hub. If one blade was too heavy, we filed off a little solder, or perhaps added a drop to the other side, until both were in perfect balance. It reminded me of the fable of the mouse weighing the cheese by taking a bite off one and then the other. Old pictures will always show tipped propellers. Tipping was a must with barnstormers.

After we finished our propeller tipping, Amelia and Cam began their mutual admiration ritual, which had become almost a daily habit. Amelia would sit on the ground with her back against the hangar wall and her feet stretched out in front of her. Cam would sit or rather sprawl all over her



outstretched legs. Amelia would gently stroke Cam's ears and Cam would nuzzle Amelia under the chin. Both appeared to enjoy it.

I remarked something about Cam's weight. "I don't see how you can stand the weight of that smelly dog like you do."

Amelia replied, "Sometimes she doesn't smell so nice, especially after she's eaten fish from the workers' camp, but she'd be disappointed if I didn't hold her. You know she has the same feeling of any little lap dog and wants to be held."

"She's pretty smart, too," Mr. Kinner said. "She always comes in the hangar whenever she hears a plane coming in to land."

"Yes, and she knows when we get helmets and goggles that a plane will start," Amelia added.

"Guess I'll call it a day," I said. "If it's nice tomorrow morning, I think I'll fly over to San Bernardino and carry a few passengers." An orange show, similar to the county fairs of the midwest, was held there every year. "Anybody want to go along? If you do, be here real early."

The next day I experienced a happening which I call "the miracle" and I still think of it as such.

That morning I flew over alone to take in the exhibits and to carry passengers. After an enjoyable and profitable day, I started back to Kinner Field in the late afternoon. There was quite a stretch of rough country between Kinner and San Bernardino. I can remember thinking, "I'd hate to have to make a forced landing along here." The distance was about sixty air miles. I was about a third of the way back to Kinner when a fog bank began coming in from the direction of the ocean. Soon the fog was so thick that I could not see the wing tips. Then my motor cut out a few times and finally quit.

I automatically put the plane in a wide, flat spiral, expecting that I would soon come out from under the fog. The altimeter unwound—4,500 feet, 4,000. Still fog. It was eerie—that thick, white mist and almost dead silence. Now I



was at three thousand feet. I could gauge the speed of my descent by the zing of the wires. I was beginning to worry, for I had only one mile of glide for every thousand feet of altitude. At 2,000 feet there was still fog. At about fifteen hundred feet I began to hear ground noises, and then the clang of a trolley car.

On the next partial turn at about 800 feet, I could barely see roof tops. I thought, "This is it—all houses and the street bisected by a hot wire." The next quarter turn—and the most beautiful green carpet just seemed to roll out below me. I landed. A man came running up, shouting, "You can't land here—you'll spoil the turf!" Several men came out of a large building nearby. I had landed on the Midwick Country Club's polo field, the only possible landing spot for miles around!

The men invited me into the clubhouse for refreshments, and one of them drove me back to Los Angeles. The next morning I returned with one of the boys and five gallons of gas on the same trolley I had heard the day before under such different circumstances. We plugged up the hole in the gas tank with a wad of gum and flew home.

If anyone wonders at my negligence in not watching the gas gauge, remember, I didn't have one. My instrument panel contained only an altimeter and a dollar watch hanging on a hook.



### CHAPTER XIII

By the spring of 1922 I had been married, to the Bill whom Amelia and I had discussed in the privacy of her bedroom; to the one who, she had warned, would make me give up flying. I was still operating my field. Then I found I was expecting a child. I wanted that baby above everything, and I made a vow that if I could just have a healthy baby, I would give up flying forever.

A man offered me a house and lot in Manhattan Beach plus a \$500 Liberty bond for my old Canuck, with the provision that I teach him to fly. I had unfinished students, but my friend, Monte, volunteered to complete the lessons and teach the buyer to fly. In August of 1922 I stepped out of my plane and have never been in one since.

I had two houses in Huntington Park, the Manhattan Beach property, and a partially-paid-for acre in Monterey Park. I also had a new Model "T" Ford coupe which cost \$738 and was my first car. My flying career had paid off well. In the fall my husband and I went back to Iowa for the birth of our son. We named him William Curtiss Southern, after his father and Glenn Curtiss.

In 1924 I returned to southern California to dispose of my property. Amelia met me and my baby son in an old Model "T" Ford with solid rubber tires. Amelia loved children and she admired little Curtiss, but I could read her thoughts, "How could you give up flying for that?"

Later at the Earharts', Mr. Earhart seemed glad that I had given up flying. He told me that Amelia and her mother were planning to drive to Boston. "Just imagine—two women all alone, embarking on such a journey!"

I didn't think it prudent to remind him that Amelia had



previously done many more dangerous things. "Bill and I drove from Iowa to Oregon with a small baby," I told him.

Amelia had sold the Airster. The man who bought it, together with his passenger, were killed in a crash.

"That crash was on the first turn," she told me. "He banked too steeply and lost flying speed. You remember the trouble that third cylinder used to cause us."

In 1970 Waldo Waterman, a veteran of the early aviation meets in 1921, told me that in 1937 when Amelia was expected to return to Oakland from her last world flight, he attempted to fly her old and later rebuilt Airster from Los Angeles to Oakland as a welcome to her. He said, "I got as far as Paso Robles and the motor threw a rod—that old Laurence engine!"

The visit in 1924 was the last time I saw Amelia. When she began organizing pioneer women pilots, she wrote asking if I cared to join. My husband, son and I were living on a prune and apricot acreage which we had purchased in 1926 in the Santa Clara Valley near Los Gatos, California. We didn't want to foster any aviation interests in our son, so I wrote her a thank you letter but declined to become a charter member. I had given up aviation for good. It was just as well that I didn't join, for then the organization couldn't have the lovely name it now has—the "Ninety Nines." The name was derived by the fact that ninety nine woman pilots responded and became charter members.

Our son knew little about my early flying until 1937 when Amelia was lost. Bill and I were greatly concerned, and we renewed contact with the Earhart family.

I visited Mother Earhart in Oakland. When she opened the door in answer to my ring, I saw just back of her on the foyer wall a life-sized portrait of Amelia at about age ten in a white dress with a white butterfly bow on her hair. Mother Earhart welcomed me with open arms and told me of the private searches still going on after the government had given up. Although she was greatly disturbed, her conversation was full of hope.



In looking through my old files, I found two letters from Mother Earhart. One, dated January 8, 1940, was written from the Berkeley Woman's City Club where she was living at the time. She described in great detail an automobile accident she had been in about a year before. "I have had great difficulty in learning to walk again. With several breaks in one leg and my more than seventy years as a handicap, it took quite a while to knit. I was spurred on to get well quickly by the thought that Amelia might get back and she must not find me helpless. I haven't given up hope of that coming to pass. You know how resourceful Amelia is."

The other letter, dated May 8, 1944, was four pages long and in small handwriting. In this she mentioned an Associated Press release telling of Amelia being picked up by a Japanese trader. She told of going from her home in North Hollywood to the Japanese Consulate in Los Angeles and how they promised to check it for her at once. When she and Mr. Putnam (Amelia's husband) returned to the consulate the following day, they found the former consul had been removed. The one taking his place professed no knowledge of any of it.

She also said that the Japanese government was agitated because of a new private search which the family had in progress. "When our small boat arrived, it was not permitted to search the Marshall, Caroline or Mariana Islands under the Japanese mandate. The searchers were told the natives were not friendly. We tried to get information from Washington, but got no further than with the Japanese."

Mrs. Earhart's conclusion, shared by many friends, was that Amelia had not been lost at sea, but had, in some manner, been captured and held a prisoner by the Japanese. She closed her last letter by saying, "I'm writing this to you because I realize that a great part of your heart is down that way too, as your boy goes back and forth in the work of his country." (Our son was a Merchant Marine officer in 1944, sailing those same hostile Japanese waters.) She continued,



"One learns to manage the outside, but the inside is something we cannot always do so well with, for it takes a lifetime of experience and practice. I hope you keep well. Affectionately, Amy Otis Earhart."



## EPILOGUE

It is now 52 years since I disposed of my Canuck. I haven't piloted or flown in a plane since that time.

My "flying" has been confined to the lecture circuit—speaking to clubs, school and church groups, pilots' associations and chambers of commerce, relating the circumstances and happenings of my flying career.

Elementary school children, usually fifth graders (at the time they are studying about Amelia), are particularly interested in her as a person, but they also question me about how I learned to fly.

At the high school level there is a great interest in all phases of flying—the students are knowledgeable of flight principles, the progress aviation has made over the years, and some students ask where they can get plans to build a plane.

The older women's groups, the members of the Daughters of the American Revolution and the Daughters of the American Colonists, register their interest from the family point of view. "Why did your mother let you do it? You should write a book." A few confide, "If only I could have done the things I wanted to do when I was a girl."

The younger women's groups—the Zontas (an organization of professional women who sponsor an Amelia Earhart scholarship) and the Ninety Nines (women pilots)—accept the advances of aviation in stride. However, they are interested in hearing about the old "wood and cloth" planes with no instruments and no concrete runways to land on.

I attended the send-off dinner at the Villa Hotel in San Mateo, California in 1972 for the Powder Puff Derby contestants. More than a hundred competed. The Derby is an annual transcontinental race for licensed women pilots.



Mardo Crane of San Jose, California, organized the Derby in 1946. Mardo is an author and teacher, and was a Wasp pilot in World War II. She was the 99th to start in the 1972 Derby.

In speaking to the men's groups, I find they show a keen interest in aviation history, but are disturbed by what appears to them to have been a haphazard way of building those early planes.

Oldsters always enjoy hearing about the old cars, compare notes, and tell me afterwards of the ones they used to have.

Interest in restoring old-model planes has become a popular hobby in California among older pilots (mostly retired) as well as younger ones. It is an expensive pursuit that requires room, special working tools and a large storage area, as well as a place to fly them.

Jan and Irv Perch are attempting to meet these requirements, and, at the same time, fulfill their hobby of collecting. Last fall my son and I spent a pleasant day at their Hill Country resort and museum at Morgan Hill, California. We viewed the antique planes and cars stored there in a block-long warehouse. "Anyone who wishes to reconstruct or build an old plane is welcome to use the shop, storage area and private flying field," Irv told me. "When we get to the office I have a film to show you about an old friend and pal of yours."

The film was given him by Trans World Airways and showed the beginning of the transcontinental passenger service known as TAT (Transcontinental Air Transport), begun July 4, 1929. The company later was taken over by TWA.

Amelia was a passenger on that flight, and the film shows her, together with the other passengers, about fifteen in all, debarking at various fields along the way.

The planes used in this first transcontinental passenger service were Ford Trimotors. Henry Ford began building them in 1926, before he ceased manufacturing the Model "T" and began manufacturing the Model "A" automobile. The planes were of all-metal construction, and were powered



by three air-cooled radial Wright J6 engines, each developing 225 horsepower. The fuselage was large—49 feet, 10 inches in length—and the wingspan was 74 feet. It was designed to fly on two of its engines if necessary.

The ungainly fuselage, with its massive metal wings, resembled a large bird. When taxied along the ground on two main wheels and a small tail wheel, it waddled like a goose--hence the nickname, "Tin Goose."

That first transcontinental passenger service was a combination of air and rail travel. On July 4, 1929, the passengers boarded a Pullman train at New York's Pennsylvania Station. They arrived at Columbus, Ohio, the following morning. There they boarded a Ford Trimotor and flew, during daylight hours, to Waynoka, Oklahoma. Again they rode a Pullman to Clovis, New Mexico, from where another Ford Trimotor flew them to Los Angeles. The cost was high—about 16¢ a mile—with only about half a day in time saved.

Mr. Perch has one of the last remaining Ford Trimotors. It is in excellent condition. The cabin interior is restored with wood paneling like the original. The seats, cockpit, instruments and rebuilt engines are of original parts wherever possible.

The one question I'm always asked, regardless of age or sex, is, "What do you think happened to Amelia?"

Thousands of miles have been traveled and thousands of hours have been spent by sincere and qualified researchers in trying to solve that question. Many solutions have been advanced, but they are based on hearsay, conjecture, circumstantial evidence and, to a great degree, on purely personal beliefs.

In 1957, twenty years after her disappearance, Fred Goerner, author of *The Search for Amelia Earhart* (Doubleday 1966) began the task of solving the mystery.

After four painstaking trips to Saipan, Goerner stated that, "Natives on the island, through a Catholic priest interpreter, claim that a woman flier and a man had been seen there in



1937." A deposition from another islander states that he had seen the graves of an American man and a woman flier; and a woman told Goerner that the woman had died of dysentery.

One native told of a rumor that a white woman flier had run out of gas and landed near Jaluit. Two brothers told of seeing two American fliers, a man and a woman, as prisoners of the Japanese on Majuro.

After the fall of Saipan, reports of the missing fliers continued to reach the outside world—one being that a marine had participated in the excavating of a grave, supposedly that of Amelia. Other marines told of seeing photographs of Amelia posed with Japanese soldiers. Another told of finding a suitcase of woman's clothing, together with clippings and a diary of Amelia's.

Mr. Goerner's conclusion is that Amelia and her navigator, Fred Noonan, were on official reconnaissance and were captured by the Japanese. It is his belief that the United States military knew or suspected what had happened but that they were hesitant, in view of a Japanese refusal, to make a forced search of the islands, which might have precipitated World War II.

In early 1971 I was visited by Major Joe Gervais who brought me the book, *"Amelia Earhart Lives"* (McGraw Hill 1970), written by Lieutenant Colonel Joe Klaas of the Air Force Reserve.

Much of the research for this book, spanning a period of ten years, was done by Major Gervais, who turned up some startling findings: The wreckage on a California mountain of a Lockheed Electra bearing the same registration number as the plane Amelia flew on her "last flight"; the twenty-eight-year incarceration in New York mental hospitals of a man who claimed to have seen her alive after her crash; and the climactic discovery of a mysterious and elusive lady.

At a luncheon on Long Island in 1965, Gervais met a



woman who so resembled Amelia that it caused a chill to run through his body. Was he looking at Amelia Earhart? Had his search ended? Was Amelia alive?

She was wearing a miniature major's oak leaf cluster and an enameled miniature metal replica of the red, white and blue ribbon which can only be officially worn by those who have been awarded the American Distinguished Flying Cross. Were these decorations Amelia's?

The woman, introduced as Mrs. Irene Bolam, admitted she was a pilot and had flown with Amelia, but all attempts by Gervais to meet with her again failed.

I decided to make a telephone call to Mrs. Bolam, and I must admit that I waited breathlessly for her first words, hoping to hear Amelia's familiar voice.

Mrs. Bolam was pleasant, inquired about my health, and said she had heard that I had recently broken my arm. "Did you hear my public denial of being Amelia Earhart on television?" she asked. I said I had and that Muriel (Amelia's sister) had also sent me a copy of the denial statement. She continued, "I have nothing more to add. Amelia was my friend, too."

Was this Mrs. Bolam's voice or Amelia's? I really don't know—fifty years can change voices as well as appearances.

Later on, when I was with Joe Klaas and Joe Gervais and we were discussing the Earhart mystery, Gervais said that Viola Gentry, a pilot and close friend of Amelia's, had intimated to him that she believed Amelia was still alive.

It was suggested that a call be placed to Viola and that I should ask her outright if this was true.

Her answer: "Yes, I do, but I don't think she knows her own identity."

Summing up, Major Gervais surmises that Amelia spent the war years in the Imperial Palace in Japan, returning to this country shortly after the end of World War II. To keep her alive, the United States was blackmailed into furnishing



the Japanese with the plans for the Hughes H-1 racer, which evolved into the Zero fighter plane which Japan used against the United States.

He further surmises that, to gain Amelia's safe release, President Truman agreed to not try Emperor Hirohito as a war criminal.

In a book, *"Amelia Earhart—The Myth and the Reality"* by Richard Strippel (Exposition Press, Inc. 1972), the writer claims that, "The conclusions drawn by several recent authors were based on insufficient research, a lack of technical understanding, or a combination of both."

He bases this allegation on his own investigation which included a close scrutiny of (1) behind-the-scenes arrangements for the trip; (2) re-creation of the fatal flight—analysis of the plane's specifications, navigation problems and weather conditions; (3) accurate transcripts of radio communications between Amelia and the Coast Guard cutter *Itasca*, and also mysterious amateur radio messages; (4) full story of the search hampered by husband George Putnam's interference, and the ensuing controversy in the United States Congress. According to Mr. Strippel, it was a case of poor planning, overconfidence, strange coincidences, and judgment errors played out against a background of political influence and top level meddling.

His conclusions about Amelia: She was not a proficient pilot; she was overconfident; and her senses were dulled by fatigue from eighteen hours in close quarters with noisy engines on either side.

He also felt that since she did not follow her navigator's carefully-worked-out procedures, the plane, out of fuel, landed in the sea about 120 miles north of Howland Island.

*"World Flight—The Earhart Trail"* by Ann Holtgren Pellegreno (Iowa State University Press 1971) tells the story of Ann piloting a rebuilt Lockheed 10, a sister ship to the



Earhart plane, in retracing Amelia's 1937 route, and reaching tiny, two-mile-long and half-mile-wide Howland Island on the thirtieth anniversary of Amelia's projected arrival.

The Pellegrino trip did not solve the question of Amelia's disappearance, but it did prove that such a flight was feasible and could be accomplished.

My personal opinion as to what happened to Amelia?

Based on the information presently available, the work of researchers, letters from Amelia's sister Muriel and Mother Earhart, I believe she went down at sea—a landing made necessary by a lack of fuel.

I also feel that, given a choice, she would have chosen a spot near some small island.

Since the islands in the vicinity of Howland were occupied by the Japanese, it is reasonable to assume that she was taken prisoner.

As to the possibility that she might still be alive—I can only hope.

With all the work that has been done to clear it up, the question, "What happened to Amelia?" is still with us. Will it eventually be answered? Who knows?

Perhaps Ann Pellegrino, in the last paragraph of Part Two, 'The Earhart Controversy' in *"World Flight"* put it all together when she said: "No matter which hypotheses or portions thereof eventually stand correct, the Amelia Earhart of 1937, admired and respected, 'disappeared' that July 2, 1937. No one can bring back that singular person any more than the era of early aviation with all its daring trials and errors which led to eventual monumental accomplishments can be lived again except through memories, and when those have faded, through films and books. So long as the aura of mystery surrounds the 'disappearance' of Amelia Earhart and Fred Noonan, the search will continue. However, might it not be contemplated that those who know the facts carry a far greater personal, social, and moral burden than those who seek the truth concerning Amelia Earhart?"



In the years that have passed, Amelia has received many awards and memorials. The AE commemorative stamp issued on the anniversary of her birth, July 24, 1963, from her home town of Atchison, Kansas, was flown to all parts of the United States by the organization of woman pilots, the Ninety Nines. Amelia's sister Muriel sent me a first cover.

The memorial I like best is the mountain in Yosemite National Park named Mount Amelia Earhart. On July 3, 1966 the members of the Rocketdyne Mountaineering Club of Pasadena, California, scaled the 12,000-foot peak and erected a plaque on which is inscribed the first two verses of "Courage is the Price," a poem written by Amelia. Gordon Palmer, president of the club, sent me pictures of the plaque and the mountain, together with a first cover postmarked from Yosemite National Park with the Yosemite stamp and the Earhart stamp. Here is the complete poem:

Courage is the price that life exacts for granting peace.  
The soul that knows it not knows no release  
From little things:

Knows not the livid loneliness of fear  
Nor mountain heights, where bitter joy can hear  
The sound of wings.

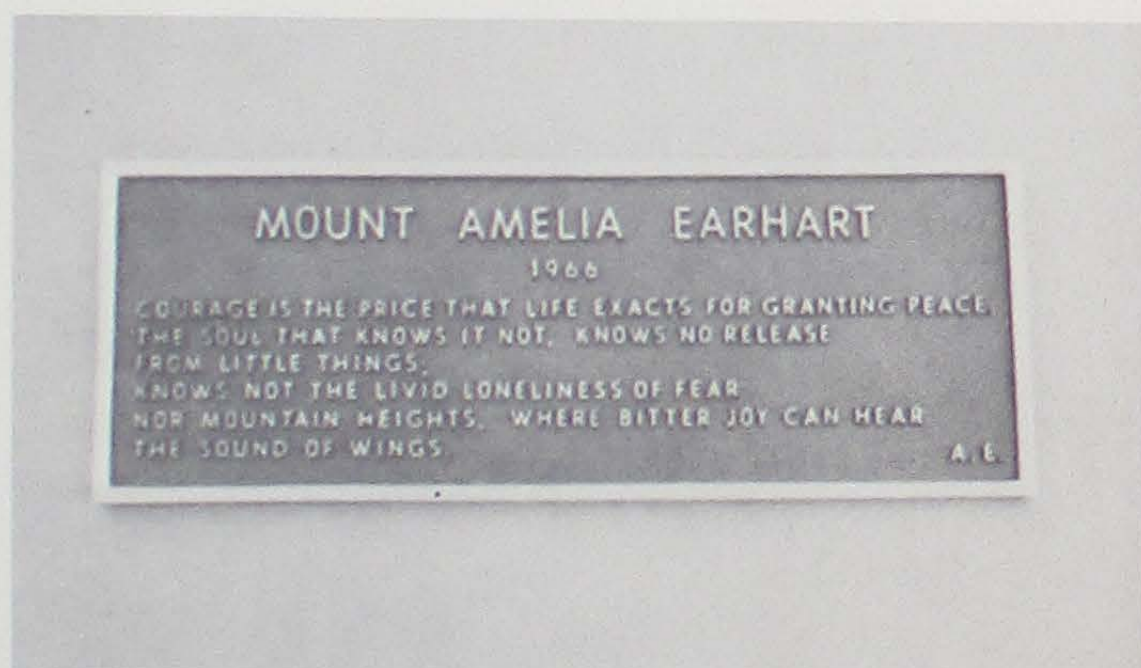
How can life grant us boon of living, compensate  
For dull gray ugliness and pregnant hate  
Unless we dare

The soul's dominion? Each time we make a choice, we pay  
With courage to behold resistless day  
And count it fair.



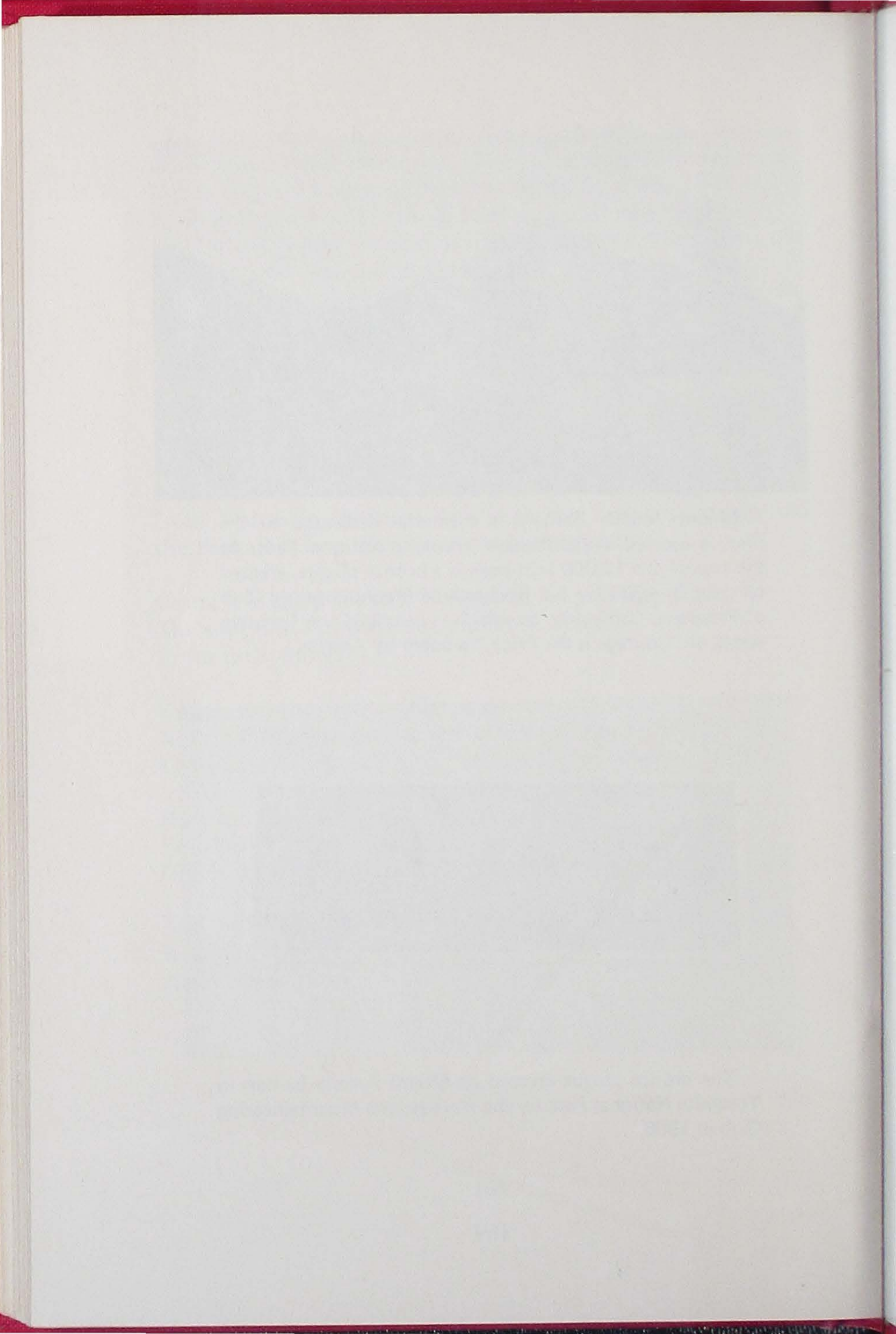


Mount Amelia Earhart, a memorial dedicated to the flier, is located in California's Yosemite National Park. At the top of this 12,000-foot peak is a bronze plaque, erected on July 3, 1966 by the Rocketdyne Mountaineering Club of Pasadena, California, on which is inscribed the first two verses of "Courage is the Price," a poem by Amelia.



The bronze plaque erected on Mount Amelia Earhart in Yosemite National Park by the Rocketdyne Mountaineering Club in 1966.

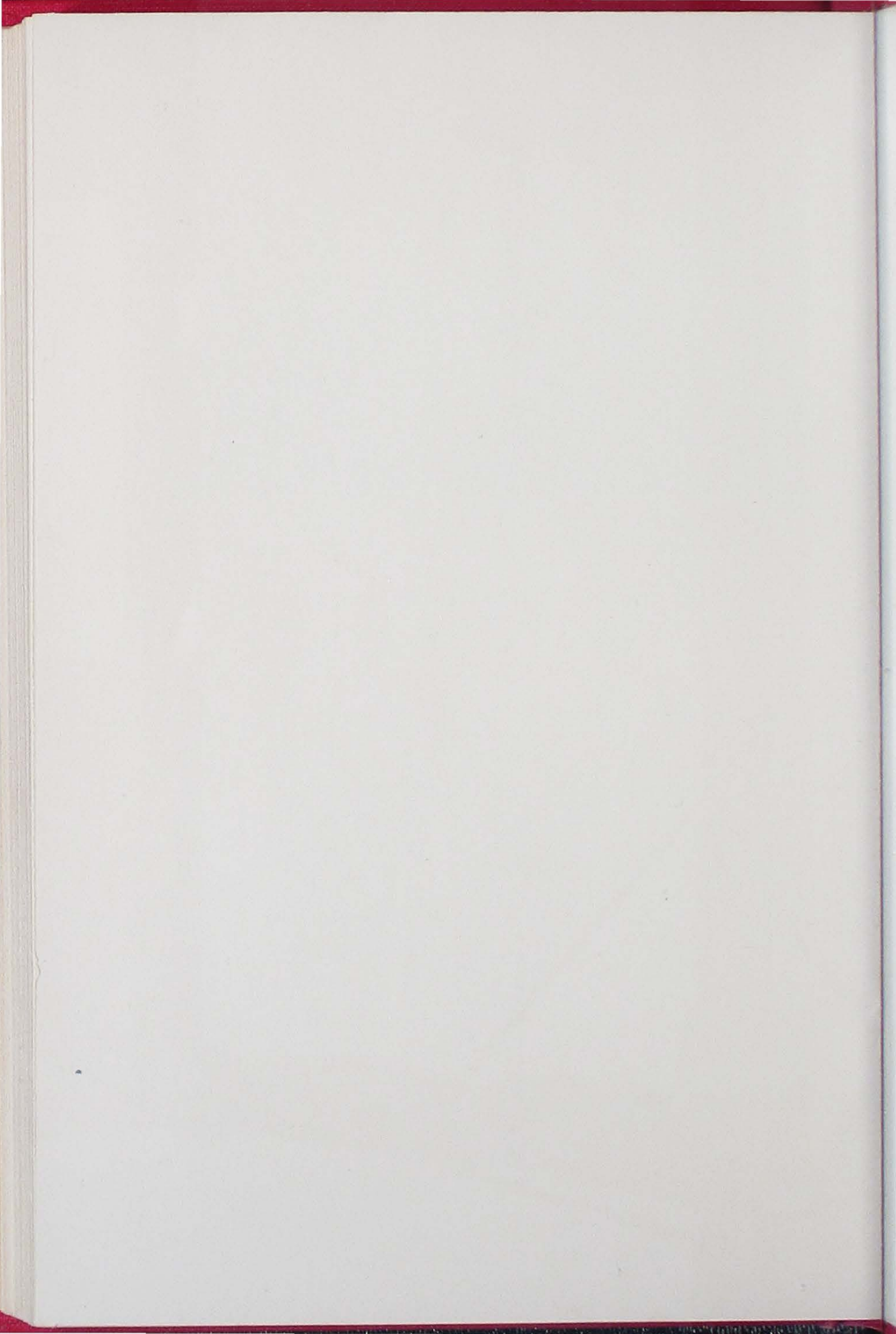




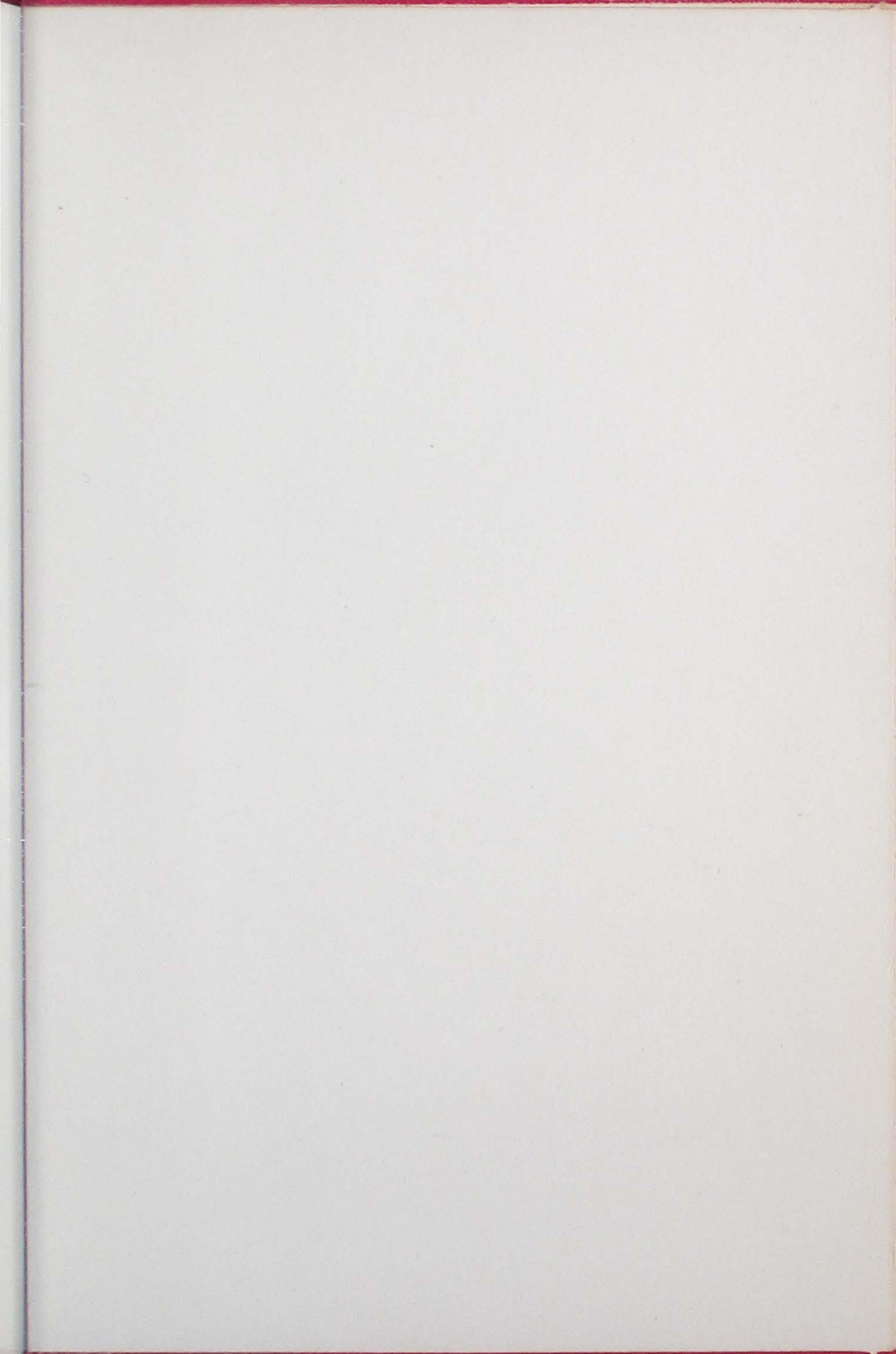














J. Klaas 17-23-04



*(Continued from front flap)*

The many historic photographs, some never before published, add to the luster of this book, and help to transport us to an era filled with challenge and true adventure.

Whether you're an aviation buff, or enjoy the nostalgic memories of "the good old days," or just like to read interesting and exciting books—this is the book for you!

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### *About the Author*

Neta Snook Southern was one of the pioneers of aviation. Back in the days before World War I, when airplanes were covered with fabric and pilots were considered daredevils, Mrs. Southern was one of the first women in the air.

Born in Mount Carroll, Illinois, Mrs. Southern moved to Iowa with her parents when in her teens. After attending a girls' finishing school, she was a student at Iowa State College (now Iowa State University) at Ames.

Mrs. Southern's heart was in the air, and in 1917 she took up a career in aviation, becoming a commercial pilot and a flight instructor.

During the first World War, she worked for the British Air Ministry in Elmira, New York. After the war, she rebuilt a Canadian training plane and barnstormed the country. She also taught students to fly, carried passengers, and did aerial advertising. For two years she operated a commercial flying field in California.

Mrs. Southern is now retired, but she is far from idle. On her California ranch she raises fruit, miniature horses, dogs, cats, and exotic birds. She teaches five bible study classes a week and somehow manages to find time to tour the lecture circuit, speaking on her aviation experiences.